



The International Journal of
INDIAN PSYCHOLOGY



Person of the Month
Erik Erikson (1902-1994)

Editor in Chief:
Prof. Suresh M. Makvana, PhD
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Prof. Suresh M. Makvana, PhD

Editor

Ankit P. Patel

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Message from the Desk of Editor

It gives me great opportunity to present the forth volume of IJIP, the measure of progress. The concept of a Journal of Indian Psychology has been developing for over few years and finally another issue has come to fruition. From this edition we will have ISSN for online 2348-5396 and print 2349-3429, ZDB-No.: 2775190-9, IDN: 1052425984, CODEN: IJIPD3, OCLC: 882110133, WorldCat Accession: (DE-600) ZDB2775190-9, ResearchID: P-8455-2015 in our publication. RedShine Publication, Inc is grateful to the contributors for making this Journal a reality.

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The journal gives preference to psychological oriented studies over experimental and mind studies.

The Journal would publish peer-reviewed original research papers, case reports, systematic reviews and meta-analysis. Editorial, Guest Editorial, Viewpoint and letter to the editor are solicited by the editorial board. Large numbers of research papers were received from all over the globe for publication and we thank each one of the authors personally for soliciting the journal. We also extend our heartfelt thanks to the reviewers and members of the editorial board who so carefully perused the papers and carried out justified evaluation. Based on their evaluation, we could accept some research papers for this issue across the disciplines. We are certain that these papers will provide qualitative information and thoughtful ideas to our accomplished readers. We thank all the readers profusely who conveyed their appreciation on the quality and content of the journal and expressed their best wishes for future issues. We convey our deep gratitude to the Editorial Board, Advisory Board and all office bearers who have made possible the publication of this journal in the planned time frame.

We humbly invite all the authors and their professional colleagues to submit their research papers for consideration for publication in our upcoming issues as per the “Scope and Guidelines to Authors” given at the website. Any comments and observations for the improvement of the journal are most welcome.

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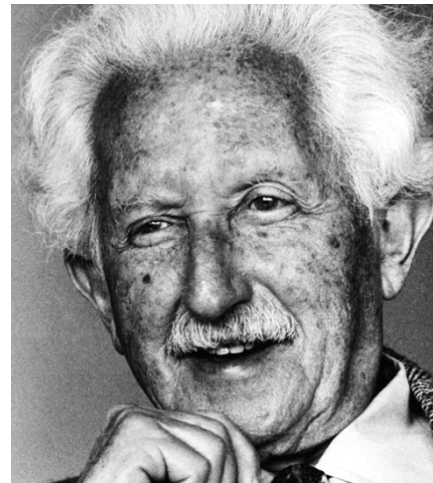
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Person of the Month: Erik Erikson (1902-1994)

Ankit Patel¹

Born	15 June 1902 Frankfurt am Main, Hesse, Germany
Died	12 May 1994 Harwich, Cape Cod, Massachusetts, U.S.
Citizenship	American, German
Known for	Theory on social development
Fields	Developmental psychologist



Erik Homburger Erikson was a German-born American developmental psychologist and psychoanalyst who pioneered in the world of child psychology by giving his development theory with his ‘eight psychosocial stages’. He was born in Frankfurt in unusual circumstances in which his mother did not conceive him through her husband but he never got to know who his biological father was. It is said that the history of his birth is something that triggered the need in him to pursue the concept of identity and it is how he gave the world the psychological term ‘identity crisis’, a major contribution to the world of psychology and psychoanalysis. He grew up in Germany and came in contact with the world of psychoanalysis when he met Sigmund Freud’s daughter Anna Freud. He studied psychoanalysis at the Vienna Psychoanalytic Institute but Nazi invasion of Germany led to his emigration to America. In America, Erikson found a wide scope to practice psychoanalysis on children in Boston and worked at various medical institutes, including the Harvard University and California University. He studied the psychology of children from various social structures, environments, emotional and psychological issues and compiled his observations in the most prominent book of his career, ‘Childhood and Society’. Erikson is also credited with being one of the originators of Ego psychology, which stressed the role of the ego as being more than a servant of the id. According to Erikson, the environment in

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Person of the Month: Erik Erikson (1902-1994)

which a child lived was crucial to providing growth, adjustment, a source of self-awareness and identity. Erikson won a Pulitzer Prize and a U.S. National Book Award in category Philosophy and Religion for *Gandhi's Truth* (1969), which focused more on his theory as applied to later phases in the life cycle.

The Erikson life-stage virtue, in order of the eight stages in which they may be acquired, are:

1. Hope, Basic trust vs. basic mistrust
2. Will, Autonomy vs. Shame
3. Purpose, Initiative vs. Guilt
4. Competence, Industry vs. Inferiority
5. Fidelity, Identity vs. Role Confusion
6. Love, Intimacy vs. isolation
7. Care, Generativity vs. stagnation
8. Wisdom, Ego integrity vs. despair
9. Psychosocial Crises

Most Cited works

1. *Childhood and Society* (1950)
2. *Young Man Luther. A Study in Psychoanalysis and History* (1958)
3. *Identity: Youth and Crisis* (1968)
4. *Gandhi's Truth: On the Origin of Militant Nonviolence* (1969)
5. *Adulthood* (edited book, 1978)
6. *Vital Involvement in Old Age* (with J.M. Erikson and H. Kivnick, 1986)
7. *The Life Cycle Completed* (with J.M. Erikson, 1987)

TIMELINE

- **1902:** Erik Erikson was born in Frankfurt, Germany to Karla Abrahamsen and Waldemar Isidor Salomonsen, who was a Jewish stockbroker. He was born to his mother under the circumstances where his mother had not seen his father for several months. He was registered as Erik Salomonsen at birth and there is no information available about his biological father. Shortly after he was born, his mother moved to Karlsruhe to become a nurse and got remarried to a pediatrician, Theodor Homburger.
- **1908:** Erik Salomonsen's name was changed to Erik Homberger.
- **1911:** Erickson was officially adopted by his stepfather, Theodor Homburger and he became Erik Homburger. The story of his birth was kept from him for a long time and he grew up not knowing who his real father was.
- **1930:** Erikson married Joan Serson Erikson and remained married to her until his death. They had 4 children together. His son, Kai T. Erikson is a prominent American sociologist.

Person of the Month: Erik Erikson (1902-1994)

- **1931:** Erikson married Joan Mowat Serson, a Canadian dancer and artist whom Erikson had met at a dress ball. During their marriage Erikson converted to Christianity.
- **1933:** He received his diploma from the Vienna Psychoanalytic Institute. This and his Montessori diploma were to be Erikson's only earned academic credentials for his life's work.
- **1933:** While Erikson was being trained in psychoanalysis, Nazis took over Germany and he had to leave the country. He first moved to Denmark and then emigrated to States where he became the first child psychoanalyst in Boston.
- **1933:** With Hitler's rise to power in Germany, the burning of Freud's books in Berlin and the potential Nazi threat to Austria, the Eriksons left an impoverished Vienna with their two young sons and emigrated to Copenhagen. Unable to regain Danish citizenship because of residence requirements, the Eriksons left for the United States, where citizenship would not be an issue
- **1936:** Erikson joined Harvard University and worked at the Institute of Human Relations, while teaching at the Medical School. Side by side, he was also studying a set of children on a Sioux reservation in South Dakota.
- **1937:** Erikson left Harvard and joined the staff of the California University in 1937. He associated with the Institute of Child Welfare there and opened his private practice. He also devoted his time in studying the children of the Yurok tribe.
- **1939:** He left Yale, and the Eriksons moved to California, where Erik had been invited to join a team engaged in a longitudinal study of child development for the University of California at Berkeley's Institute of Child Welfare.
- **1950:** After publishing the book, *Childhood and Society*, for which he is best known, Erikson left the University of California when California's Levering Act required professors there to sign loyalty oaths.
- **1950:** All of his observations of children of different environments and breeds led to compilation of the most famous book of his psychology career, '*Childhood and Society*' in 1950. The book introduced the world to the concept of 'identity crisis'.
- **1960:** He returned to Harvard as a professor of human development.
- **1960:** He went back to Harvard University and took the position of professor of human development and worked until his retirement and after his formal retirement he wrote on various subjects of psychology along with his wife.
- **1969:** Erikson won a Pulitzer Prize for the contribution in the field of psychology through his writings and a U.S. National Book Award in category Philosophy and Religion for his book '*Gandhi's Truth* (1969)'.
- **1973:** The National Endowment for the Humanities gave an opportunity to Erikson to lecture at the Jefferson Lecture, the United States' highest honor for achievement in the humanities. His lecture was called "Dimensions of a New Identity".

Person of the Month: Erik Erikson (1902-1994)

- **1973:** The National Endowment for the Humanities selected Erikson for the Jefferson Lecture, the United States' highest honor for achievement in the humanities. Erikson's lecture was titled "Dimensions of a New Identity"
- **1994:** Erikson died on May 12, 1994 in Harwich, Massachusetts. He and his wife are buried in the First Congregational Church Cemetery in Harwich.

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Emotional Competence in Male and Female Adolescents of Jammu and Kashmir

Urfain Habib^{1*}, Dr. Omar Habib², Prof. Shamim A. Ansari³

ABSTRACT

Emotional competence is the capability of handling one's emotions in varied situations. Goleman (1998) defined emotional competence as set of competencies that results in outstanding performance on job. The notion that intelligence brings with it success and achievement has taken a back seat after seeing many intelligent brains fading into oblivion and people with average intelligence ruling the world. Psychologists led by Goleman (1998) are championing the research into this area as to see; what is it that can guarantee success in life? The present research examined emotional competence in male and female adolescents of Jammu and Kashmir. Results revealed a significant difference in the emotional competence of male and female adolescents.

Keywords: *Emotional Competence, Jammu and Kashmir*

"If your emotional abilities aren't in hand, if you don't have self-awareness, if you are not able to manage your distressing emotions, if you can't have empathy and have effective relationships. Then no matter how smart you are, you are not going to get very far." **Goleman (1998)**

The very concept of emotional competence is an off shoot of 'Emotional Intelligence'. The idea of traditional types of intelligence, such as IQ, failed to fully explain cognitive ability. Thus the concept of multiple intelligence was propounded by the psychologists. Within the set of multiple intelligence, psychologists included Intra-personal (the capacity to understand one-self, to appreciate one's feelings, fears and motivations) and Inter-personal intelligence (the capacity to understand the intentions, motivation and desires of the other people). Both of these concepts of Inter-personal and Intra-personal intelligence laid the very foundation of emotional intelligence. Emotional Intelligence has been explained as the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action (Salovey & Mayer, 2004).

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Emotional Competence in Male and Female Adolescents of Jammu and Kashmir

Emotional Competence is the multi-faceted ability to strategically be aware of one's emotions and other's emotions and to act on this awareness, so that one can negotiate interpersonal exchanges and regulate emotional experience (Saarni, 1990). Constituent elements of emotional competence include abilities to:

- (i) Express and experience a broad variety of well-modulated, not incapacitating, emotions.
- (ii) Regulate the experience and expression of emotion- when “too much” or “too little” emotional experience, or the expression of emotions, interferes with one's intra or inter-personal goals.
- (iii) Understand the emotions of one-self and others.

Thus, recommended assessment measures at all age periods, except infancy, include expression and experience, regulation, and understanding of emotions (Denham, 1998).

In the quest of strengthening the whole concept of emotional intelligence several models have been propounded by the psychologists in order to establish a general understanding of the concept. The summary of the models is given below;

Ability Model

Mayer & Salovey, Caruso & Sitarenious (2001) strived to define the concept of emotional intelligence within the confines of the standard criteria for a new intelligence. Following their continuing research, their initial definition of emotional intelligence was revised to “The ability to perceive emotion, integrate emotion to facilitate thought, understand emotions and to regulate emotions to personal growth”. However after pursuing research, their definition of emotional intelligence evolved into “The capacity to reason about emotions, and of emotions, to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to promote emotional and intellectual growth”(Salovey, Peter; Mayer, John; Caruso, David, 2004).

The ability based model views emotions as useful source of information that helps one to make sense of and navigate the social environment (Salovey & Mayer, 1997; Salovey & Grewal, 2005). The model proposes that individuals vary in their ability to process information of an emotional nature and in their ability to relate emotional processing to a wider cognition. This ability is seen to manifest itself in certain adaptive behaviors. The model claims that emotional intelligence includes four types of abilities:

- 1) Perceiving emotions- the ability to detect and decipher emotions in faces, pictures, voices, and cultural artefacts, including the ability to identify one's own emotions.

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Perceiving emotions represents a basic aspect of emotional intelligence, as it makes all other processing of emotional information possible.

- 2) Using emotions- the ability to harness emotions to facilitate various cognitive activities, such as thinking and problem solving. The emotionally intelligent person can capitalize fully upon his or her changing moods in order to best fit the task at hand.
- 3) Understanding emotions- the ability to comprehend emotional language and to appreciate complicated relationships among emotions, for example, understanding emotions encompasses the ability to be sensitive to slight variations between emotions, and describe how emotions evolve over time.
- 4) Managing emotions- the ability to regulate emotions in both ourselves and in others. Therefore, the emotionally intelligent person can harness emotions, even negative ones, and manage them to achieve intended goals.

The current measure of ability intelligence, the Mayer-salovey-Caruso Emotional Intelligence Test (MSCEIT) is based on a series of emotion based problem solving items (Salovey & Grewal, 2005; Bradberry & Su, 2003). Consistent with the model's claim of emotional intelligence as a type of intelligence, the test is modeled on ability based IQ test. By testing a person's abilities on each of the four branches of emotional intelligence, it generates scores for each of the branches as well as total score. Central to the four branch model is the idea that Emotional Intelligence requires attainment of social norms. Therefore, the MSCEIT is scored in a consensus fashion, with higher scores indicating higher overlap between an individual's answers and those provided by a worldwide sample of respondents. The MSCEIT can also be expert scored, so that the amount of overlap is calculated between an individual's answers and those provided by a group of 21 emotion researches (Salovey & Grewal, 2005).

METHODOLOGY

The sample size of the present study consisted of two hundred adolescents (N=200), between the age group 16 to 19 yrs. The data has been collected from two main Senior Secondary Schools of the district Baramulla (Kashmir). For the purpose of the data collection emotional competence assessment scale was used, which has been described in detail below.

EMOTIONAL COMPETENCE ASSESSMENT SCALE (ECAS):

The scale has been developed by Paiva and Dr. Kumar in the year 2009, which is used for all age groups. With all in all 35 items and eight dimension, each dimension consisting of 5 items. The eight dimensions of the scale are; Happiness, Love, Interest, Sympathy, Fear, Anger, Sadness and Jealousy. It is a four point scale where the subject has to choose the statement from four categories of responses namely; Always, Sometimes, Rarely and Never.

RESULT AND DISCUSSION

An independent samples t test was conducted for the purpose of data analyses.

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Table1, Showing emotional competence of male and female adolescents

EC	Gender	N	Mean	Std. Deviation	t-value	Sig
Happiness	Male	100	9.4587	1.72955	2.24	.01*
	Female	100	9.9000	1.00616		
Love	Male	100	9.7064	1.71217	-.59	.05**
	Female	100	9.8333	1.28299		
Interest	Male	100	9.7523	1.40209	1.99	.05**
	Female	100	10.1000	1.06053		
Sympathy	Male	100	19.1376	2.09703	-.61	.01*
	Female	100	19.3000	1.47983		
Anger	Male	100	11.6147	1.63247	.71	.07
	Female	100	11.4667	1.21969		
Sadness	Male	100	11.0367	1.91933	.41	.27
	Female	100	10.9333	1.55643		
Jealousy	Male	100	11.0367	1.73166	-.73	.12
	Female	100	11.2000	1.29996		
EC.Total	Male	100	81.5963	8.55388	9.74	.05**
	Female	100	93.6000	8.72913		

Note: * $p < .01$, ** $p < .05$, EC = Emotional Competence

The results revealed that male and female adolescents differ significantly in respect to their Emotional Competence, with t-value of 9.74 and $p = .05$. Female adolescents ($M = 93.60$) exhibit higher score of Emotional Competence than their Male counterparts ($M = 81.59$). Examination of the various dimensions of Emotional Competence further revealed Female adolescents scored significantly high on three dimensions of Emotional Competence (Happiness: $M = 9.90$, Love: $M = 9.83$ & Interest: $M = 10.10$). Dimension wise analyses of emotional competence revealed that male and female adolescents do not differ on the following dimensions viz; anger, sadness & jealousy, but they do differ on the dimensions of happiness, love, interest and sympathy. The findings are backed by the study conducted by Brody and Hall (2000), where they found that women are more emotionally expressive than men. Being emotionally expressive is an integral part of emotional competence.

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Conflict of Interests

The author declared no conflict of interests.

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Effects of Teachers' Lecturing Style, Students' Seating Position and Students' Seating Preference on Recall

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ABSTRACT

In response to the decline of students' academic performance in non-western climes, this study investigated the effects of teachers' lecturing style (interactive and non-interactive lecturing style), students' seating position (front seat, middle seat and back seat) and students' seating preference (front seat, middle seat and back seat) on recall, using Secondary School students of a College in Ibadan. The study adopted a 2 x 3 x 3 Factorial between subjects design. Data was collected from one hundred and eight participants (108) who were selected randomly for the study and randomly assigned to groups. The result shows a significant difference in recall for lecturing style at $F(1, 90) = 14.127$; $P < .01$, (interactive lecturing style having a mean of 9.65 and the non-interactive lecturing style with a mean of 7.96). This shows that the interactive lecturing style has a more positive effect on recall. Students' seating position and seating preference shows no significant difference in recall at $F(2, 90) = 1.981$; $P > .05$ and $F(2, 90) = 0.000$; $P > .05$ respectively. It was also found that there was no significant interaction effect of the three variables on recall at $F(4, 90) = 1.138$; $P > .05$. This study therefore recommends that teachers and instructors should employ an interactive lecturing style to help students have better recall and therefore perform better academically. Also further research should be carried out with a more representative sample in non-western climes.

Keywords: Teachers' Lecturing Style, Students' Seating Position, Students' Seating Preference, Recall

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One of the ways through which Psychologists measure and study memory processes of humans and animals as the case may require is by examining their ability to recall which is known as the retrieval of learned materials (Mulhall, 2011; Schacter, Gilbert, & Wegner, 2011). The ability to retrieve learned material (Recall) is dependent on the ability to store the material (retention); which is the preservation of some aspects of experience across time (Walker & Lambert, 1995). Recall therefore is an essential part of the study of memory and often comes into play in major memory researches; in fact, the greater part of experimental work on memory has been on recall (Mulhall 2011). In a classroom setting recall can be said to affect academic performance (Mlambo, 2011), in most cases the performance of students in their school work is highly dependent on their recall ability. Hence the association between recall and students' academic performance cannot be overly stressed. To this respect learning is ineffective if material learned cannot be recalled. Therefore the present study focuses on the effect of teachers' lecturing style, students' seating position and students' seating preference on recall.

According to the cognitive school, learning is seen as a seemingly permanent change in mental associations attributed to experience or change in how a person makes associations based upon experience (Mayer, 2003). Cognitively, the process of learning is examined by how an individual perceives, encodes, interprets, remembers, elaborates, and retrieves what they experience from memory (Moore, Burton, & Myers, 1996). As individuals we are constantly bombarded with limitless bits of information that are recorded through our senses into our memory (Mayer & Moreno, 2003). However, there is a limit to the amount of information that an individual can process in memory at a time (Baddeley, 1999; Moore, Burton & Myers, 1996; Paivio, 1986). Information Processing theorists (Broadbent, 1958; Deutsch & Deutsch, 1963) propose that the mind has a limited capacity for the amount and nature of the information it can process, and so just like a computer, the human mind processes information through the application of logical rules and strategies (Miller, 2011). It emphasizes the significance of "encoding" (input) of information, the "storage" of information, and the "retrieval" (access) of information. (Tan, 2003). This model explains that through the changes in the brain the individual's learning improves and these changes are most times spurred by the environment, which could include the source of information (the teacher), and the proximity of the individual to the source of the information (seating position). Recall in this case is enhanced by positive environmental structures. The Encoding Specificity theory provides a framework for understanding how contextual information affects memory and recall. The principle, proposed by researchers Thomson & Tulving, (1973) states that memory is most effective when information available at encoding is also present at retrieval. Encoding begins at the perception of a stimulus and ends when such perception has been stored in the memory. Specifically, the encoding specificity principle stress that specific retrieval cues facilitate recall only when the information about them and about their relation to the stimulus to be remembered is stored in the same memory web (Tulving, 1983).

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On the other hand motivational theories emphasize the place of an individual's drive as key to the recall of material. The Expectancy value theory (Vroom, 1964) propose that the degree to which an individual will expend effort on a task is a function of; their expectation that they will be able to perform the task successfully and by so doing obtain the rewards associated with a successful completion of the task and also that they value the rewards associated with successful completion of the task (Feather, 1969). The model assumes that the amount of effort invested is a product of the expectation of success and the value of the reward. Another motivational theory according to Bandura (1977, 1988) emphasize that Self-efficacy beliefs are important determinants of the amount of effort an individual would expand on a task. Individuals with high self-efficacy would continue with a task even if it is difficult while those with low self-efficacy will contribute minimum effort and, in many cases, give up easily. Bandura (1993) argues that stronger self-efficacy beliefs are associated with higher goals and firmer commitment to attaining the goals. Students with low efficacy are easily discouraged by failure and reduce their effort on tasks when confronted by difficult tasks. According to Bandura, people develop their personal sense of efficacy from four sources: performance accomplishment, observation of the performance of others, verbal persuasion and related types of social influence, and states of physiological arousal from which they judge personal capabilities and vulnerability (Bandura, 1982).

These theories all provide a framework for understanding recall, while cognitive theories focus on the processes of recall from encoding to storage and finally to retrieval of the encoded memory. Motivational theories emphasize the drive which students and teachers bring to the classroom. On the part of the motivational theories an individual's self-efficacy goes a long way to determine the individual's competence and performance. Students who believe in their ability to achieve do show better recall. Never-the-less the encoding specificity principle provides the best framework for understanding how contextual information affects memory and recall. Specific encoding operations determine what is to be stored, which in turn verifies which retrieval cues are effective in providing access to that which was stored. The theory places the teacher and the classroom arrangement as important factors that could affect the student's recall.

It is agreed that the teacher's positioning (lecturing style) impacts how students learn, receive information, and maintain on-task behaviour (Myers & Anderson 2010). Lecturing style in this case refers to the way the teacher disseminates the content of the material either by actively interacting with the students or passively 'pouring' out course content. Two broad lecturing styles have been identified; the interactive and non-interactive lecturing style (Klavern, 2010; Aslam & Kingdon, 2007; Ebert-May, Handelsman, Beichner, Bruns, Chang, DeHaan, Gentile, Lauffer, Stewart, Tilghman, & Wood, 2004). Interactive lecturing involves an increased interchange between teachers, students and the lecture content. The use of interactive lectures can promote active learning, heighten attention and motivation, give feedback to the teacher and

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the student, and increase satisfaction for both (Steinert & Snell 1999). The other style- the non-interactive style requires lectures to be recited without any significant interchange between the teacher, the student and the lecture content. These two styles compared are bound to produce different outcomes on the student in terms of encoding, recall and in turn performance.

Over time teachers who seek out ways to make lectures interactive (involving the active participation of the students) are believed to produce better students. It is observed that when the teacher is not engaged with the class, students are less motivated to learn and more tempted to participate in off task behaviour (Cruickshank, Jenkins & Metcalf, 2009). Therefore if teachers are able to help their students maintain focus on the task and create effective communication they can also help the students create memory pathways for encoding the information. However, do teachers who practice the interactive lecturing style always have better results?

Firstly, Aslam & Kingdon (2007) examined how student performance is influenced by several teacher activities and revealed that lesson planning, involving students by asking questions during class and quizzing them on past material all substantially benefit pupil learning. Research has demonstrated that students learn more when both teachers and students spend more time actively engaged in academic tasks (Brush, 1997). Overall, (Michel, Cater III & Varela, 2010) found that, in general, it does not appear that the active learning approach is better than the passive learning when success is measured by broad cognitive outcomes. Studies by (Ebert-May & Brewer, 1997; Ebert-May et. al. 2004) found that there were no significant differences in broad subject matter learning outcomes but rather a significant improvement in class-specific learning outcomes for students exposed to the active learning approach. Despite this findings a dilemma exist in that there seems to be no consistent definition for what an interactive lecturing style entails. Though most times it is agreed that certain traits like; engaging students in classroom activities, spending more time on task and constantly exposing students to interactive class quizzes, are commonly found with the interactive lecturing style. And generally these traits add up to what makes a lecturing style more productive and is therefore termed the interactive lecturing style which is contrary to the non-interactive lecturing style.

Students' Seating Position is another factor predicted to affect recall and in turn students' academic performance. It refers to the way students' seats are arranged in order of front roll seats, middle roll seats and back roll seats and what seats these students actually sit in. The seating arrangement of the classroom determines what position is defined as; front roll seats, middle roll seats, and back roll seats. Therefore the seats are judged by their distance from the instructor: front roll seats represent the seats closest to the instructor, while the back roll seats represent the seats farthest from the instructor and the middle roll seats are the seats of average distance from the instructor. Before now the effect of seat location on learning had received surprisingly little attention in education literature (Weinstein 1979). Educators probably did not

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consider seating location as a variable strong enough to affect students' performance. But with recent studies on classroom environment and its effect on performance seating position has slowly made its way to becoming a major focus. The questions researchers ask is, does the position which students sit in class affect their performance?

Griffith (1921) published one of the first reports on this subject and noted that students sitting at the last row had low academic performance; he claimed that the front and center seats of the room were the best places to perform well. Later, other studies documented that students who sit near the blackboard usually have a better school performance (Sommer, 1967; Schwebel & Cherlin, 1972; Becker et al., 1973, Levine et al., 1980; Holliman & Anderson, 1986; Pedersen, 1994; Benedict & Hoag, 2004; Perkins & Wieman, 2005). Both Holliman & Anderson (1986) and Becker et al. (1976) found that as the distance from the instructor to the student seat increased, student performance decreased. Despite these findings the effect of randomly assigned seating on student performance is unclear. One study by Kalinowski & Taper (2007) found no relationship between random seat assignments and student outcomes. This contrasts with the results (Sommer, 1967; Schwebel & Cherlin, 1972; Becker et al., 1973, Levine et al., 1980; Holliman & Anderson, 1986; Pedersen, 1994; Benedict & Hoag, 2004; Perkins & Wieman, 2005). They obtained two noteworthy results. First, they found no evidence that grades or student attitudes were affected by seat location. Nor was there a suggestion of any such relationship. In a comparison study of self-selection and assigned seating, Stires (1980) found no grade differences between students who chose to sit at the front of the class versus students assigned to sit up close. Meeks, Knotts, James, Williams, Vassar & Wren (2013) also confirmed the result of Kalinowski & Taper in a study of the impact of seating location and seating type on student performance. The findings suggest that student performance is not significantly altered by seating location or seating type. Therefore literature regarding the effect of seating location on performance is mixed.

In some settings however, students are allocated to their various sitting positions and in other conditions students get to choose the seats they sit in. It has been noted that individual difference exists in their preferences: some students prefer to sit in the front, while others prefer to sit at the back or middle seat; this is referred to as the students' preferred seating position. In cases where students are given the opportunity to choose their seats, the seats they choose may depend on other factors best known to the student and this choice might also affect the students' recall. It is observed that students who prefer to sit in front seats perform better on an average than those who sit at the back. Having examined the effect of students' seating position on performance; another variable that is of interest in this research is students' seating preference. In a slightly recent study on seating location in large lectures (Benedict & Hoag, 2004) asked the following question: are Seating Preferences or Location Related to Course Performance? They reported that individuals who prefer to sit near the front of the room have a higher probability of receiving

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high grades, whereas students which prefer the back have a higher probability of receiving poorer grades. A preference for sitting in the back, regardless whether one did so, increased the probability of receiving poor grades by 23 percentage points. Students unable to sit in their preferred locations and forced forward tend to receive higher grades, despite their preferences for back seats. Seating preferences and final seat location therefore may be separate factors affecting grade performance.

According to Vander Schee (2011), seat selection has no significant correlation with student GPA; however, students who preferred to sit in the front row did outperform others in the class in terms of overall course grade. Earlier work by Wulf (1977) showed that while students who chose their seats in the front of the classroom outperformed others in the class, randomly assigned seats yielded no significant difference in performance relative to seat location. Overall, the literature reveals a weak inverse relationship between student performance and distance from the instructor. In their study of seat choice and personality, Totusek & Staton-Spicer (1982) tested two hypotheses: students who choose to sit in the front or at the center have different personality traits than students sitting elsewhere. Totusek & Staton-Spicer concluded that there are personality differences among students based on seat location especially when the seat is the students' preference, and that the seat location creates some personality traits in students.

In summary the position which a student prefers to sit tells a lot about their personality, and indirectly their academic potentials. In exam conditions teachers can predict which students are likely to cheat in the exam hall just by observing the seats which the students prefer to sit in. Also predictions have been made that students positioning can affect how they focus on information, encode information and invariably how they recall information. Despite these predictions researches focus less on the effect of students' seating position and students' seating preference on recall. The focus in most research has been mostly on seating arrangement and its effect on general performance which differs significantly from the students' actual seating position.

In a society such as ours where formal education seems to be the most 'colourful' path way to success, even more emphasis should be placed on the topic of recall which is mostly judged by the students' academic performance. Since few studies have been carried out on the effect of lecturing style, seating position, seating preference on recall especially in non-western climes, the purpose of the study was to investigate the effect of lecturing style, seating position, seating preference on recall. It hopes to discover whether students' ability to recall lecture information can be attributed to their sitting position, preference or the lecturing style employed by the teacher.

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The following hypotheses were stated in the study:

- Participants exposed to the interactive lecturing style would score significantly higher on recall than those exposed to the non-interactive lecturing style.
- Students' seating position would significantly affect recall.
- Students' seating preference would significantly affect recall.

METHODS

Participants

The sample consisted of male and female students at senior secondary school level. A total of one hundred and eight students (108) participated in the research. The sample was selected from students of Immanuel College Agbowo, Ibadan, Oyo State, Nigeria. To avoid the effect of confounding variables such as sex, the sample was evenly distributed with 54 males (50%) and 54 females (50%) with a mean age of 16.5 years and an SD of 2.34.

Instruments

Demographic Information: This section is designed to get information in the area of demographic characteristics of the participants: it contains three items the student's Name, Gender, Age and Preferred Seating Position.

Recall Test: A recall test was developed and standardized for the purpose of this study. The test was designed to test students' recall ability. It contains a comprehension passage adopted from Frederic Bartlett's "The war of the Ghosts" which is an English translation of a Native American folk story. This story was also used by Bartlett (1932) in one of his famous memory experiments where his subjects were required to recall the story in as much details as possible at various time intervals after the story was originally presented to them. Followed by the comprehension are 13 items based on the comprehension to ascertain students' level of recall, the test is supposed to be taken within 20mins. The test has a Kuder Richardson reliability of 0.83 and overall mean of 8.63 and an SD of 3.23. In addition to having content validity a face validity of 82.22% was also obtained for the test.

Recall Test Standardization Procedure

Validity: The test was validated by five (5) experts in English Language and Communication Arts with a minimum qualification of M.A. or M.ed. The experts were selected from three secondary schools in Ibadan north Local Government Area of Oyo State Nigeria. The experts made adjustments to the adopted comprehension to fit the population in question; they also helped in developing the items for the test. Face validity was done on the entire test; sixty (60) senior secondary school students were asked to rate the test YES if they understood the test content (the comprehension passage and items) and NO if they did not understand the test contents. 82.22% of the students rated the test YES meaning they understood the tests contents.

Reliability: In this study, using a standardization sample of 60 participants, a strong reliability measure was obtained. Item analysis was also done using a Point Biserial Correlation. An initial

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14 items were developed, these items were later reduced to 13 items after conducting a point biserial correlation and it was found that one of the 14 items did not meet up to a correlation of 0.25, having a value of 0.022. The item with the highest value, item 13 was found to be 0.712, while the item with the lowest value, item 9 was found to be 0.261 giving a range of 0.451, hence all the items on the test were found to be valid.

Procedure

The researcher made use of a random sampling method and random assignment technique. Students at the senior secondary level of Immanuel College were approached to volunteer for the study, out of which a total of 193 students (92 males and 101 females) indicated their interest in being part of the study. The volunteers were asked to indicate their seat preference, whether they would like to sit at the front, middle or back seat as they volunteered; for the male volunteers, 29 indicated the front seat as their seat preference while 38 picked the middle seat and 25 students indicated the back seat as their preferred seat. And for the females 43 picked the front seat, while 38 picked the middle seat and 20 students indicated the back seat as their preferred seat. Out of this number, 36 participants (18 males and 18 females) each from the three seat preference (the front seat, middle seat and back seat preference) were picked by balloting making a total of 108 participants (54 males and 54 females).

The 54 male participants (18 participants each, with front seat preference, middle seat preference and back seat preference respectively) were then divided into their respective seating position. The 18 male participants who chose the front seat were divided randomly (3 cells with 6 participants each) into the front seat position, middle seat position and back seat position. The same procedure was done for the other seat preferences (middle seat and back seat preference). Participants in each of the assigned seating positions were then divided into two equal groups, labelled group B1 and B2 respectively. This amounted to a total 9 cells with 3 male participants each in the respective groups. In total 27 male participants each were assigned to the two groups. By random assignment, specifically by the use of balloting these participants were then exposed to the lecturing treatment.

The same procedure was used for the female participants. The male and female participants in the two groups B1 and B2 were then merged together. Each group had a total number of 54 participants each representing 27 males and 27 females. The subgroups are arranged as illustrated in table 1. After the selection and assignment, participants in B1 were exposed to the interactive lecturing style while participants in B2 were exposed to the non-interactive lecturing style. The students were then given a test on the lecture content (i.e. the recall test). Students' performances were then assessed, and the dependent variable was measured based on the students' performances on the test. The data was then analyzed and the result presented.

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Design/Statistics

A 2 x 3 x 3 Factorial design was used in designing the research. Teachers' lecturing teaching style was manipulated on two levels: interactive and non-interactive lecturing style. Students' seating position was manipulated on three levels: front roll seats, middle roll seats, and back roll seats. Likewise students' seating preference was manipulated on three levels: front roll seats, middle roll seats, and back roll seat. The research design is illustrated in table 1. Data collected in the study were analyzed using Statistical Package for Social Science (SPSS) software version 20.0. Both descriptive and inferential statistics were used in the analysis of the data collected. Specifically, a 2 x 3 x 3 Analysis of Variance (ANOVA) was used test all the stated hypotheses.

RESULTS

Table 2 shows the result of the analysis.

Table 2: 2 x 3 x 3 ANOVA Summary of Participants' Recall

Source	Sum of Squares	df	Mean square	F	Sig.
Lecturing Style (A)	76.676	1	76.676	14.127	.000
Students Seating Position (B)	21.500	2	10.750	1.981	.144
Students Seating Preference (C)	.000	2	.000	.000	1.000
A x B	13.685	2	6.843	1.261	.288
A x C	3.185	2	1.593	.293	.746
B x C	20.667	4	5.167	.952	.438
A x B x C	24.704	4	6.176	1.138	.344
Error	488.500	90	5.428		
Total	9023.000	108			

The result of the 3-way analysis of variance (ANOVA) show that the main effect of lecturing style on recall was significant $F(1, 90) = 14.127$; $P < .01$. While students' seating position and students' seating preference showed no significant effect on recall. Also there was no interaction effect between the variables on recall.

The first hypothesis which stated that participants exposed to the interactive lecturing style would score significantly higher on recall than those exposed to the non-interactive lecturing style was tested using 2 x 3 x 3 ANOVA and the result is presented in tables 2 and 3.

Table 3: Summary of the mean distribution for the effect of teachers' lecturing style (interactive and non-interactive lecturing style) on recall

Lecturing style	N	\bar{X}	SD
Interactive	54	9.65	2.085
Non-interactive	54	7.96	2.540

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It was presented that participants exposed to the interactive lecturing style ($\bar{X} = 9.65$) scored significantly higher than those exposed to the non-interactive lecturing style ($\bar{X} = 7.96$) at $F(1, 90) = 14.127$; $P < .01$. This result confirms the stated hypothesis.

DISCUSSION

The current study investigated the effect of teachers' lecturing style, students' seating position and students' seating preference on recall. For this purpose three hypotheses were tested. The first hypothesis stated that participants exposed to the interactive lecturing style would score significantly higher on recall than those exposed to the non-interactive lecturing style. The result of the test confirmed the stated hypothesis. It thus suggests that there is a significant difference in the recall between students exposed to the interactive lecture style and the non-interactive lecture style. This study was confirmed by (Steinert & Snell 1999; Aslam & Kingdon 2007).

The second hypothesis stated that Students' seating position would significantly affect recall. Findings reveal that the hypothesis was unverified. It thus suggests that regardless of where students sit in class their recall is not affected. Although the result was not as the hypothesis stated, this finding is supported by (Stires, 1980; Kalinowski & Taper 2007; Meeks, Knotts, James, Williams, Vassar & Wren 2013) who found no relationship between random seat assignments and student outcomes. However these findings do not correlate with some other studies on the same subject. It is reported that students who sit near the blackboard usually have a better school performance (Becker et al., 1973, Levine et al., 1980; Holliman & Anderson, 1986; Pedersen, 1994; Benedict & Hoag, 2004; Perkins & Wieman, 2005; Stires, 1980; Sommer, 1967; Schwebel & Cherlin, 1972). Despite this contradiction the result shows some level of consistency with recent studies and adds to the existing knowledge.

The third hypothesis stated that students' seating preference would significantly affect recall. Again findings reveal that the hypothesis was also unverified. It was presented that there was no significant effect of students' seating preference on recall. This result is therefore in line with the findings of Vander Schee (2011), which reports that students seat selection had no significant correlation with student overall performance.

CONCLUSION

In conclusion, it was revealed that only the teachers' lecturing style had an effect on recall. Those exposed to the interactive lecturing style scored higher than those exposed to the non-interactive lecturing style. This finding places the lecturing style employed by teachers as a very important variable when students' recall and academic performance is concerned. As explained by cognitive theories, it is seen that the teacher affects the information processing of the student, in encoding, storage and recall. The teacher also has the power to influence students' motivation

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as well, by helping the student create an expectation towards learning as explained by the expectancy theory and can also help the student build self-efficacy.

The impact of seating on recall when compared to existing studies, presents a contradictory result: while recent literatures show no significant effect of seating on recall, older literatures seem to contradict these findings. This study seems to agree with the recent findings on the effect of seating on recall. It can be said that students' motives for choosing a particular seat over another have changed overtime. In this study for example, when the students were asked why they sat in their respective seats, they reported such reasons as: having eye defects and height advantages or disadvantage as the case may be. This clearly shows that seating is more influenced by other factors that do not correlate and might not contribute to a students' ability to recall. Therefore we agree that seating position and preference are not significant variables that affect a students' recall.

IMPLICATION OF THE STUDY

Although it will be too early to conclude, the results obtained in this study indicate that the ability to recall specific information after being exposed to a stimulus lies majorly on the messenger and his/her mode of delivering the message. It might be safe then to imply that the teachers' lecturing style is the most significant variable that affects students' recall, and that the location of the student does not really count. The interest of the students in the class activities, their motivation and invariable the students recall lies to a great deal on the teacher's ability to interact the course material effectively with the students and just as an ancient Chinese proverb puts it "there are no bad students only bad teachers".

Consequently, considering the rapid decline in education in Nigeria, this study has excelled in shedding more light and providing insight into how much impact the teachers' style of lecturing contributes to the decline of education in the country. Hopefully, information gotten from the study would help mortify this challenge. It is therefore recommended that policy makers and educators should invest more in training of teachers on the use the interactive lecturing style in teaching, and also develop more applicable teaching policies, laws and practices and emphasize strictly that the teachers abide by them.

LIMITATIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

Although, the present study has made important contribution to the body of knowledge, taking the study of recall a step further by examining teachers' lecturing style, students' seating position and students' preference as factors that could affect recall. Nevertheless the study is not without its own limitations. One limitation this study has is in the sample size used; 108 secondary school students of Immanuel College Agbowo, Ibadan. This sample size cannot be said to be a proper representation of the general population, hence, might not allow adequate generalization.

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A second limitation encountered by the researcher in the course of this study is the dearth of empirical studies to support the research. There are lots of gaps yet to be filled. Most of the research work done has been mostly on seating arrangement and location. There were few empirical studies found on seating preference and lecturing style as defined by the researcher. Again most of the empirical studies focused on student performance and very few on recall. The time frame of research was also noted as a major limitation of the study. Therefore it might not be accurate to assume that the differences noted in the study for lecturing style would be the same in a more longitudinal research, where lectures are carried out over a longer period.

For further studies, it is recommended that studies should be carried out in this area involving a more representative sample over a more longitudinal frame. This will go a long way to ascertain the validity and reliability of the findings of this study. Also more researchers should be encouraged to develop interest in this field especially in non-western climes in order to validate the claims in other cultures.

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Conflict of Interests

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Environmental Ethics for Sustainable Development: A Comparative Study on Tribal and Non-Tribal Secondary School Students

Tanveer Ahmad Bhat^{1*}, Prof. Ahrar Husain²

ABSTRACT

Science, as a part of way of life, has been developed to help human beings and has the ethical responsibility of improving the quality of life. As far as Environment is concerned, the preliminary harmonic association between man and Environment has been critically distressed throughout current decades. The unrestrained progression of Technology and mankind's leading performance over Nature, have shaped serious environmental troubles. Unless these troubles will be restricted, they may create lasting unfavorable trends which may even put at risk earth's capacity. In order to attain feasible progress and harmonious coexistence between Mankind and Nature, mankind has to shape a novel association with the environment. At present the world is witnessing numerous environmental problems, which are the result of un-mindful exploitations of natural resources by human beings. There is an urgent need to create environmental ethics among all the citizens in general and student community in particular so as to enable us in ensuring Environmental Sustainability which is one amongst the Millennium Development Goals. The present study was conducted on Tribal and Non-Tribal Secondary Students of Jammu and Kashmir on a randomly selected sample of 302 Tribal and 277 Non-Tribal Secondary School Students. The researcher found that the Non-Tribal Secondary School Students have high Environmental Ethics than their Tribal counterparts.

Keywords: *Environmental Ethics, Sustainable Development, Millennium Development Goals, Tribal, Non-Tribal*

Ever since near the beginning of 1970s, environmental ethics has been a varied field of research involving moral philosophy and ethics, feminist and gender research, critical culture studies, ecocriticism, anarchist theory, pragmatism, ecotheology and postmodern theory (Naess 1973; Sylvan 1973; Singer 1973; Zimmerman 1993; Oelschlaeger 1995). During the 1970s and 1980s,

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the ‘intrinsic value’ discourse (Goodpaster 1978/1993; Norton 1987; Callicott 1989, 1999; Hargrove 1989; Taylor 1989) came to be seen as the environmental ethics in pioneering academic journals such as “Environmental Values and Environmental Ethics”. Environmental ethics is indispensable for Sustainable Development.

In the world India has the largest population of tribal people numbering more than 104 million (census report 2011) make up 8.61% of total population of India. They cover 5% of the area boundaries and heterogeneity. According to Majumdar (1983) “A tribe is a collection of families bearing a common name, members of which occupies the same territory, speak the same language and observe certain taboos regarding marriage, professional and occupation have developed a well assessed system of reciprocity and mutuality of obligation.”

METHODS AND PROCEDURE

The researcher used Descriptive Method in the present study. The researcher selected two districts of Jammu and Kashmir namely Poonch and Leh through Purposive Sampling Method and 579 Secondary School Students were selected randomly comprising of 302 & 277 Tribal and Non-Tribal respectively. Environmental Ethics Scale (EES-TH) developed by Dr. Haseen Taj was administered on the sampled students. The collected data was statistically analyzed through mean, standard deviation and t-test for testing the significance of mean differences between the groups with the help of SPSS 21 Software.

RESULTS AND DISCUSSIONS

To identify the level of environmental ethics of the sample participants, here is the description about the procedure of obtaining the scores on Environmental Ethics Scale:

Environmental Ethics Scale (EES-TH) developed by Dr. Haseen Taj is a standardized scale that seeks the information about ethics about the physical environment. This scale has 45 items. It is a self – reporting three point scale. Each item alternative is assigned a weight ranging from 3 (I agree absolutely) to 1 (I don’t agree) for positive items. In the case of negative items range of weights is reversed i.e. from 1 (I agree absolutely) to 3 (I don’t agree). The ethics scores of an individual is the sum total of scores. The range of scores is from 1 to 135 with the higher score indicating the positive environmental ethics and vice versa.

The analysis of the data, collected by the above mentioned scale was done according to the manual of the scale and is presented in the table below:

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Secondary School Students**

Table No.1: Stanine scores based on Environmental Ethics Scale

Stanine	Level	Tribal	Frequency	Non -Tribal	Frequency
9.	High	106 above	03	134 above	02
8.		102-106	42	133-134	69
7.		93-102	44	127-133	81
		Total	89	Total	152
6.	Average	83-93	50	119-127	32
5.		74-83	31	112-119	35
4.		64-74	42	105-112	23
		Total	123	Total	90
3.	Low	56-64	45	96-105	22
2.		46-56	33	90-96	08
1.		46 below	12	90 below	05
		Total	90	Total	35
Mean		70.23		108.83	
SD		18.58		14.54	
N		302		277	

From the above table; it is evident that most of the sampled Tribal Secondary School Students have Average level of Environmental Ethics i.e. 123 out of 302 amounting to a percentage of 40.73%. In case of Non- Tribal secondary school students most of the students have high level of Environmental Ethics i.e. 152 out of 277 leading to a percentage of 54.87%. The other levels of Environmental Ethics among Tribal Secondary School Students are 29.47% (n=89), 29.80% (n=90) i.e. High and Low respectively. 32.49% (n=90), 12.64% (n=35) are the Average and Low levels of Environmental Ethics among the Non-Tribal Secondary School Students.

As reflected in the table No.1; the 7th stanine has the highest frequency i.e. 44 out of 89 and 81 out of 152 from Tribal and Non-Tribal Secondary Students respectively. In the High level, the 9th stanine has the lowest frequency i.e., 3 out of 89 and 2 out of 152. In the Average Level, 6th stanine has the highest frequency of 50 out of 123 and Lowest frequency of 31 out 123 fall at 5th stanine among Tribal Secondary School Students, whereas, in case of Non-Tribal Secondary School Students the 5th stanine has the highest frequency of 35 out of 90 and 4th stanine has the Lowest frequency of 23 out of 90 at the Average Level. In case of Low Level, 3rd stanine has the highest frequency of 45 out of 90 and 22 out of 35 for Tribal and Non-Tribal Secondary School Students respectively.

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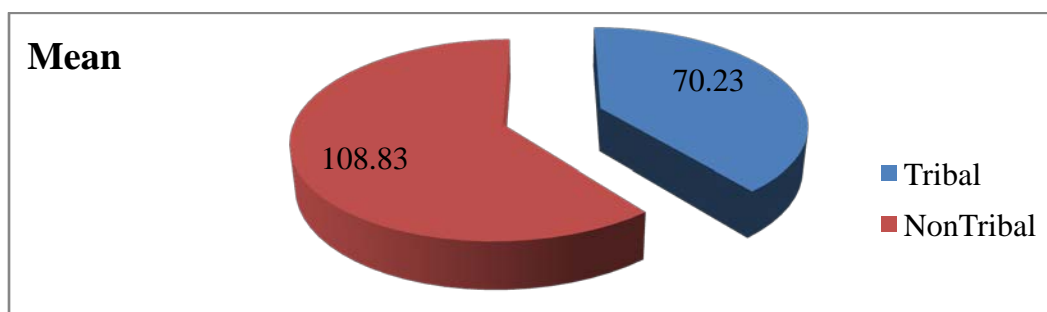


Fig No. 1: Pie Chart showing the Mean difference of Tribal and Non-Tribal Secondary School Students.

From the above pie diagram, it is evident that the Non-Tribal Secondary School students have high Environmental Ethics as the Mean of 108.83 and 70.23 of Non-Tribal and Tribal Secondary School students respectively.

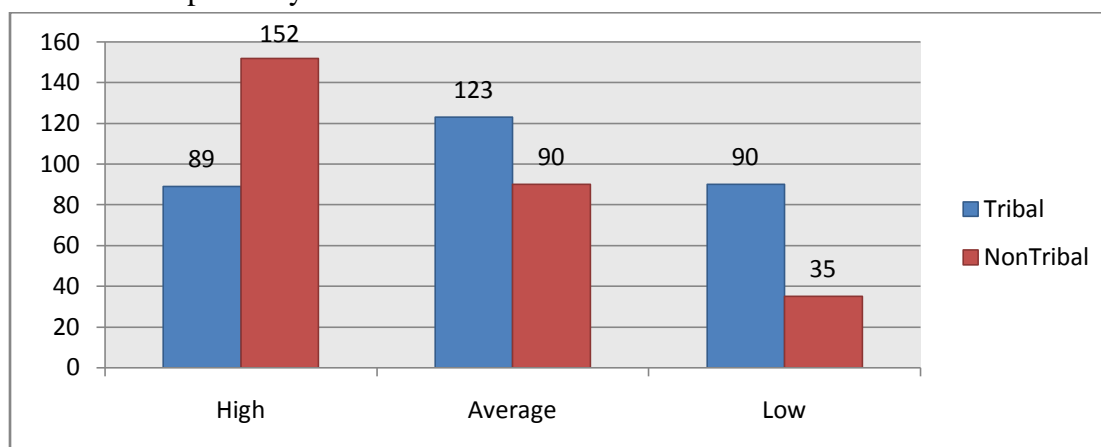


Fig No. 2: Bar Chart showing the levels of Environmental Ethics among Tribal and Non-Tribal Secondary School Students.

CONCLUSIONS

From the findings of the study undertaken on Tribal and Non-Tribal Secondary School Students of Jammu and Kashmir regarding their Environmental Ethics for Sustainable Development; it is evident that Non-Tribal Secondary School Students have more Environmental Ethics than their Tribal counterparts. So, immediate measures need to be taken for inculcation of Environmental Ethics in the entire populace in general and the student community in particular which is a key component for Sustainable Development.

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Conflict of Interests

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A Study of Academic Achievement Relation to Home Environment of Secondary School Students

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ABSTRACT

The present study was conducted on hundred students to find out the relationship between academic achievement and home environment of students studying in private and Govt School going badnapur. Data were collected Home environment scale developed by Dr. Karuna Shankar Mishra. The results of the study revealed that a significantly positive relationship of home environment components of control, protectiveness, conformity, rewards, nurturance, permissiveness with academic achievement, there by meaning that it can be affected the academic achievement of students and But Social isolation dimension of home environment is negatively associated to academic achievement. However, the correlation of other components of home environment is not significantly relevant to academic achievement. The results show that the t-Ratio of Academic Achievement of boys and girls student and also private and govt school going students. The study has implications for educationists and parents as well.

Keywords: *Home Environment, Academic Achievement and Private & Govt. Schools.*

In modern age of competition and perfection every human being strives for success. For student, success implies academic success which should be well matched with pillars on which the future successes of their lives stand. Academic achievement plays an important role in the attainment of ideal and harmonious development of the child. It is also the status of individual's learning and his ability to apply what he has learnt. Academic achievement is not a uni-dimensional but a multi-dimensional phenomenon. Modern society is achievement oriented. Academic achievement is given a lot weight age in admitting the students for vocational oriented aspects. Academic achievement depends upon a number of factors which in turn determines the failure and the success of the students. There is the need to study and understand the variables that are directly or indirectly related to the academic achievement of adolescents like, school environment, home environment, parent education etc. Realizing the importance of influence of home environment on Academic achievement the investigator decided to undertake this research. Moreover lack of studies in this area also encouraged the investigator to probe into it. This

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probes the investigator to check whether home environment is related to academic achievement or not.

Adolescence is a phase separate from both early childhood and adulthood. It is a transitional period that requires special attention and protection. Physically, children go through a number of transitions while they mature. We now know that the brain undergoes quite substantial developments in early adolescence, which affect emotional skills as well as physical and mental abilities. As adolescent girls and boys grow, they take on additional responsibilities, experiment with new ways of doing things and push for independence. It is a time in which values and skills are developed that have great impact on well-being. Evidence shows that when adolescent girls and boys are supported and encouraged by caring adults, along with policies and services attentive to their needs and capabilities, they have the potential to break long-standing cycles of poverty, discrimination and violence. Children grow up in a dynamic social context in which local communities drive global development. Adolescents, social actors in their own right, are part of this movement. During adolescence, children develop the ability to:

- A) Understand abstract ideas, such as higher math concepts, and develop moral philosophies, including rights and privileges.
- B) Establish and maintain satisfying relationships by learning to share intimacy without feeling worried or inhibited.
- C) Move toward a more mature sense of themselves and their purpose.
- D) Question old values without losing their identity.

Home is the person's primary environment from the time he is born until the day he dies; hence its effect on the individual is also most significant and enduring. Home environment is the most important institution for the existence and continuance of human life and the development of various personality traits. Every parent is highly concerned with providing material facilities to their children and ignoring the other facilities. It is a false notion among most parents that by providing a child with a fully furnished separate room and arranging some tuition for it, their duty to help children in their studies over.

Meaning of achievement

Achievement is defined as measurable behaviour in a standardised series of tests (Simpson and Weiner. 1989). Achievement test is usually constructed and standardised to measure proficiency in school subjects. In most cases, according to them, "accomplishment" is sometimes used in place of "achievement". According to Bruce and Neville (1979) educational achievement is measured by standardised achievement test developed for school subjects. What this means is that academic achievement is measured in relation to what is attained at the end of a course, since it is the accomplishment of medium or long term objective of education. What is important is that the test should be a standardised test to meet national norm. For a test to be standardised,

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it must be valid for over a period of time Achievement is regarded as action of completing or attaining by exertion. It subsumes anything won by exertion, a feat, a distinguished and successful action. Simpson and Weiner (1989) contended that achievement test intends to measure systematic education and training in school occupation towards a conventionally accepted pattern of skills or knowledge. Several subjects may be combined into an achievement battery for measuring general school proficiency either in point score or achievement age and perhaps achievement quotient.

Academic achievement or (**academic**) **performance** is the outcome of education, the extent to which a student, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important- procedural knowledge such as skills or declarative knowledge such as facts.

Academic achievement may be defined as excellence in all academic disciplines, in class as well as cocurricular activities. It includes excellence in sporting behaviour, confidence, communication skills, punctuality, arts, culture and the like which can be achieved only when an individual is well adjusted. Trow (1956) defined academic achievement as “knowledge attaining ability or degree of competence in school tasks usually measured by standardized tests and expressed in a grade or units based on pupils’ performance”. Good (1959) refers to academic achievement as, “The knowledge obtained or skills developed in the school subjects usually designed by test scores or marks assigned by the teacher”. Mehta K.K. (1969) defined academic achievement as “academic performance includes both curricular and co-curricular performance of the students. It indicates the learning outcome of the students. In class rooms students performs their potentials efficiently, as a result of it, learning takes place”. The learning outcome changes the behaviour pattern of the student through different subjects.

Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. School systems mostly define cognitive goals that either apply across multiple subject areas (e.g., critical thinking) or include the acquisition of knowledge and understanding in a specific intellectual domain (e.g., numeracy, literacy, science, history). Therefore, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. Because the field of academic achievement is very wide-ranging and covers a broad variety of educational outcomes, the definition of academic achievement depends on the indicators used to measure it. Among the many criteria that indicate academic achievement, there are very general indicators such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates. All criteria

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have in common that they represent intellectual endeavors and thus, more or less, mirror the intellectual capacity of a person. In developed societies, academic achievement plays an important role in every person's life. Academic achievement as measured by the GPA (grade point average) or by standardized assessments designed for selection purpose such as the SAT (Scholastic Assessment Test) determines whether a student will have the opportunity to continue his or her education (e.g., to attend a university). Therefore, academic achievement defines whether one can take part in higher education, and based on the educational degrees one attains, influences one's vocational career after education. Besides the relevance for an individual, academic achievement is of utmost importance for the wealth of a nation and its prosperity. The strong association between a society's level of academic achievement and positive socioeconomic development is one reason for conducting international studies on academic achievement, such as PISA (Programme for International Student Assessment), administered by the OECD (Organisation for Economic Co-operation and Development). The results of these studies provide information about different indicators of a nation's academic achievement; such information is used to analyze the strengths and weaknesses of a nation's educational system and to guide educational policy decisions. Given the individual and societal importance of academic achievement, it is not surprising that academic achievement is the research focus of many scientists; for example, in psychology or educational disciplines. This article focuses on the explanation, determination, enhancement, and assessment of academic achievement as investigated by educational psychologists.

Home environment:

the home environment as the immediate social environment of the child and thus refers to it as the ecology of child development. Bronfenbrenner (1979) defines ecology of human development as "the scientific study of the progressive mutual interaction between an active growing human being and the changing properties of the immediate settings in which the developing person lives". The process of development is affected by relations between the settings and the larger contexts in which the settings are embedded. In this regard, Bronfenbrenner emphasizes that the developing person is not passive to the environment; rather dynamic and progressively helping to restructure the environment in which she/he lives. The environment, on the other hand, exerts its influence on the developing and growing person through shared interactions between the person and other people, objects, and symbols found in the environment (Sontag, 1996). Referring to the home environment as a social setting puts the thesis also in the perspective of sociocultural theory. Sociocultural theory emphasizes that human development results from dynamic interaction between a person and the surrounding social and cultural forces. According to Vygotsky (1986), the child's learning is enclosed with social events occurring as the child interacts with people in the environment. The child participates in various social tasks through language (Vygotsky, 1978). Three main features of the two theories, the ecological theory of human development and sociocultural theory, are important to consider in relation to the development of the child. First, the theories set the child in her/his social setting

and emphasize the role of the environment in the child's development. Second, the child's environment is considered relevant to the developmental processes. Third, the theories view the child as an active person who not only influences the environment but is also influenced by the environment. The relationships between the child and the environment are reciprocal. Based on the main features emanating from the two theories, the thesis regards the home environment as a microsystem (Bronfenbrenner, 1979). According to Bronfenbrenner, a microsystem is a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics. The microsystem of an individual therefore includes the culture in which that individual is educated and lives in, and the other people with whom the individual interacts (Zastrov & KirstAshman, 2009). Although it is not possible to ground this thesis on the ecological model, due to the correlational design in most of the included studies, the thesis is to some extent based on and identifies elements from the model. The home living and home literacy environments are identified and related to the development of phonological awareness, and reading and writing ability. In order to fully base the study on the ecological model, and use it in the process of assessing the influence of home environment on the development of phonological awareness and reading and writing ability, the elements process and time would have had to be included. The criteria for the ecological model, the four proposed elements – process, person, context and time (Bronfenbrenner & Morris, 1998; Tudge, Mokrova, Hatfield & Karnik, 2009) are not fulfilled in the study. Nevertheless, the thesis takes advantage of the ecological and developmental model in order to be sensitive to the relevance of different factors for micro- and other higher levels.

REVIEWS OF PAST STUDIES

The most comprehensive reviews of the research in the area of gender differences have shown very few true differences between math and verbal abilities between men and women (Halpern, 2000). In fact, the research has shown only two gender differences in specific sub-areas of spatial and verbal abilities, three-dimensional mental rotation (favoring men), and speech production (favoring women). Other research has also shown a decline in the differences between the genders in the past few decades on standardized test, suggesting that the more exposure that women are getting to math and science classes, the better their scores. Even though this research puts into questions whether gender differences still exist in academic achievement, many researchers are still finding differences in performance as well as general interest in areas related to math and science. Thus, achievement alone cannot be the sole reason for women as they make their career choices. Work by Eccles, Lord, Roeser, Barber, and Jozefowicz (1997) found that gender differences in enrollment in advanced mathematics courses in high school are mediated by gender differences in expectations for success in math and physics and perceived value of competence in math. Jacobs, Lanaz, Osgood, Eccles, and Wigfield (2002) found that self-concept of ability and task value in math decline for both genders between first and twelfth grades with no real difference between girls and boys trajectories over time. In fact, by the twelfth grade, girls valued math more than boys when

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controlling for self-concept of ability in math. This research might suggest that women should be just as represented in the technology or mathematical work force as men. This, however, is not the case. Even though women have made great strides in the law, medical, and social science professions, very few can be found in graduate programs or professions in mathematics, computer science, physics, engineering, or information technology jobs (Eccles, 2001). Many ideas have been put forth on why high achieving women may not be entering these professions including discrimination, gender-typed socialization, self-concept of ability in these areas, and the value and interest that women have in these professions (Eccles, 2001). The focus of this paper will be to examine how the value and interest in math relates to academic achievement over time. We predict that subjective task value, in particular, interest in math, will be associated with math school grades over time, even after controlling for maternal education and achievement-related variables. Theodore (1995) conducted in such diverse states as Maine, Florida and Washington have directly or indirectly compared academic performance of home schooled students to national norms. It was discovered that home schooled students who perform well also do well in the standardised achievement test. What this indicates is that academic performance culminates and influences academic achievement.

SIGNIFICANCE OF THE STUDY

Home environment helps to develop better academic achievement. without warmfull and peacefully home atmosphere student cannot succeed. The ability of parents to plan, organize and manage time will benefit your child in every area of life. Create a good home environment where for successful academic life. The nature of the family has significant influence on the academic success of students with respect to preparation for examination and school environment. From the perusal of related literature it is evident that numbers of studies were conducted by taking the variables of the present study.

Objectives of the study

1. To find out the relationship between academic achievement and Home Environment.
2. To search difference in Academic Achievement of Boys and Girls students.
3. To find out impact of type of school on academic achievement.

Hypothesis

1. There would be significant relationship between Home Environment and academic achievement.
2. The level of academic achievement is higher in girls students than boys students.
3. There would be significant difference in Academic Achievement of students of private and govt. school.

METHODOLOGY

The present study falls in the category of survey method, which explains the present status of the situation.

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Sample

In the present study, keeping in view the limited source of time and money only 100 students from higher secondary schools of Badnapur tahshil were randomly selected. These 100 students were further divided by boys students and girls students and by the types of school of student divided in private and govt. school. Short summary of sample is given in below:-

Gender	Type of school		Total
	Private school	Govt school	
Boys students	25	25	50
Girls students	25	25	50
Total	50	50	100

Tools Used In Present Study

1. Total scores of students in previous class were taken as measure of academic achievement.
2. Home environment scale developed by Dr. Karuna Shankar Mishra(1985)

Method of Data Collection

The researcher individually visited the schools of badnapur tahshil. The researcher requested the H.M of the respective schools to collect data from 09th and 10th class students. The students were explained the purpose of collecting the data and were assured that information collected will be kept confidential and will only be used for the purpose of research. They were made to sit comfortably and were requested to fill in the personal information and the test. Academic records were taken from school records. The data consisted of scores of academic achievement and Home environment of adolescents.

Statistical tools for Data Analysis

For present research, objectives of the study, Mean S.D. t-test & correlation approach was followed to study the relationship of academic achievement and home environment as well as difference of home environment between boys and girls with respect to their type of school.

RESULTS AND INTERPRETATION

Table no.I:-Relationship between Home Environment and academic achievement.

Sr	Dimensions of home environment	Correlation	Level of Significance (0.05)
A	Control	0.41	significant
B	Protectiveness	0.39	significant
C	Punishment	-0.23	Not significant
D	Conformity	0.38	significant
E	Social isolation	-0.37	significant
F	Reward	0.57	significant

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Sr	Dimensions of home environment	Correlation	Level of Significance (0.05)
G	Deprivation of Privileges	0.13	Not significant
H	Nurturance	0.38	significant
I	Rejection	-0.17	Not significant
J	Permissiveness	0.41	significant

In above table no.1 shows that the coefficient of correlation of home environment components and academic achievement. Table shows that the positive coefficient of correlation of academic achievement with home environment dimensions. r values of control, protectiveness, conformity, rewards, nurturance, permissiveness are significant on .05 levels. It is showing significantly positive relationship of these dimensions of home environment with academic achievement. Also it indicated that the impact of warmful home environment on academic success as well as student performance. The r values observed that coefficient of correlation of academic achievement with punishment deprivation of Privileges and rejection components of home environment are -0.23, -0.13 and -0.17 respectively. These r-values are not significant even at .05 level of significant indicating that there exists no significant relationship between study habits and punishment, deprivation of Privileges and rejection components of home environment of students. It means that these dimensions of home environment are not related with the academic achievement. But Social isolation dimension of home environment is negatively associated to academic achievement. it means, the social isolation is more then student academic performance is decreasing. Hence Hypothesis no. one is satisfactory accepted.

Ho.no.2: The level of academic achievement is higher in girls students than boys students.

Table no.02: Academic achievement of Girl and boy students

academic achievement	Group	N	Mean	t	significance
	Boys	50	55.39	3.4	significant
	Girls	50	73.87		

Table 4.2 shows the mean value of Academic Achievement of Girls and boys students. The mean score of boys student is 55.39 and girls student is 73.87, To verify the above hypothesis t-Ratio between mean score of Academic achievement of boys and girls students was computed. The results show that the t-Ratio of Academic Achievement of boys and girls students has found to be 3.4. our calculated value is greater than table value at 0.05 and 0.01 level, which shows that it is significant at both levels, Hence hypothesis no. two is accepted and concluded that the academic achievement level is more in girls students. The obtained results are in conformity with the previous findings of Spinrad, et. Al. (1999), Codjoe (2007). However, these results are contrary to the previous findings of pandey and Ahmed (2008), Kaur (2009).

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Ho.03 There would be significant difference in Academic Achievement of students of private and govt. school, table no.03: Academic Achievement of students of private and govt. school.

Academic achievement	Group	N	Mean	t	significance
	Private school students	50	59.83	6.89	significant
	Govt school students	50	44.52		

Table 4.4 shows Mean score of Academic Achievement of govt and private schools in badnapur. the score of private school students is 59.83 and govt school students is 44.52. The results shows that the t-Ratio of Academic Achievement of type of schools student are found to be 6.89. Which is significant on 0.01 levels. Hence, it concluded that the level of academic achievement is higher in private school students than govt school students. So, Hypothesis no. three is Accepted.

The home environment is one of the determinants of study habits. Many parents may not be aware of the influence of various home environmental factors on the academic achievement of their children. It is recommended that teachers, educationists and leaders should try to create awareness in parents on the importance of the home environment on study habits which can improve the children's performance. Parents need to be informed that they can contribute to the education of their children through encouragement, provision of learning facilities, and active assistance among other strategies.

CONCLUSIONS

1. There is positive relationship of control, protectiveness, conformity, rewards; nurturance, permissiveness dimensions of home environment with academic achievement and other dimensions are negatively associated with academic achievement.
2. The level of academic achievement is higher in girl students than boys students.
3. The level of academic achievement is more in private schools student than govt school students.

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Conflict of Interests

The author declared no conflict of interests.

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Administration, Scoring & Interpretation of Interest Inventory- A Study on 10th Class Students (Jaipur)

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ABSTRACT

The present study on Administration, Scoring and Interpretation of Interest Inventory: A study on 10th class students (Jaipur) was conducted in 2014-2015 in Khonagorian, Jaipur. The sample consisted of 10 secondary school children from 10th class. Data was collected through Interest Inventory. Interest Inventory developed by S. Chatterji's (non-verbal preference records-962). This a Non-language tests of interest to measure vocational interest on ten different areas. They are Fine Arts, Literary Work, Scientific, Medical, Agricultural, Mechanical/Technical, Crafts, Out Door, Sports, and Household Work. The raw scores were converted in stanine scores with the help of manual norms. Interpretation of result was done in three ways 1) Individual Interest 2) Group Interest 3) Area wise. The result revealed that interest of the group often student's varies from one interest area to another. It shows the individual differences.

Keywords: *Administration, Scoring, Interpretation, Interest Inventory-, 10th Class Students, Jaipur*

In school every student has different types of interests, likes and dislikes. When student complete education up to 10 class at school and he leave the school, then he seek to take admission for further study and from this point problems come in existence like what type of area (educational, vocational , technical etc.) he should opt. At this stage in private school principle and teachers examine many types of tests as per child's interest in different area. Psychologists have witnessed that each and every individual has got own cult of personality with varying degree of interest. Interest indicates the mode of life of the individual. It is the interest which helps to bring about the selectivity. It is the interest which has great incentive to attention.

Various definition by different authors also indicated it like "*Interest is a stable quality of an individual*" by M.C. Dougall. "*Interest is a disposition in its dynamic aspect.*" by Drever and

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also Encyclopedia of education defines “*Inclination to like, to seek and to engage in certain kinds of activities.*”

Interests are the significant elements in personality, which play an important role in their educational and vocational careers. The tools for measuring the interest, like and dislike of an individual are various types of inventories, interest scale, records etc.

Two type of interest inventory:

1. For literate person
2. For illiterate person

Interest inventories indicate to extent to which the expressed interest of a person who are engaged in specific occupation.

Types of Interest

Interest is classified in following area:

1. Social Interest
2. Recreation Interest
3. Personal Interest
4. Vocational Interest.

➤ Social Interest:

Those interests by which a person sphere increase outside the home and neighborhood. He comes to contacts with more people.

➤ Recreational Interest:

Recreation contributes to mental health and the people who are healthy have specially this kind of interest. Especially adolescents have this kind of interest.

➤ Personal interest:

Every person, whether, boy or girl, adult or old, male and female has some kinds of personal interests.

➤ Vocational Interest:

Vocational interest are those by which person choose their vocation or want to take such vocation. The area of vocational is very large. A person alone cannot acquire all kinds of skill. Skill differs from person to person.

Tests of Interest

Tests of interest have been development by psychologist mainly for two purposes (a) to improve vocational selection in various jobs and (b) to provide vocational guidance for selecting appropriate vocation keeping in to consideration the individual's future success.

It has been very since research activities in the field of interest measurement in psychology started with growing interest.

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Fröehlich has indicated the following four ways to obtain certain reliable information about the interests of the individual.

1. Observing the individual
2. Getting his expression of interest
3. Studying his activities he is engaging
4. Measuring the interest inventories.

In the field of applied psychology, these have appeared numerous “Inventories” to measure interest. Some of them:

- Kuder’s preference record.
- Strong vocational interest blank.
- Thurston interest schedule.
- Minnesota vocational interest blank.
- Chatterji’s non –verbal preference records.
- Bhardwaj’s interest inventory.

All the above inventories, though different information ultimately aim of measuring the interest of the pupil with basic assumption that, measured interest reflect the needs , values and motivation of individual.

Purpose:

The purpose of study is to know the different type of interest of students in some different following areas.

Here, to know the interest to sample students, chatterji’s non –language preference test was conduct on class X Govt. secondary school, kho-Nagorian, Jaipur (Raj).

Brief Description Of The Preference Record :

This chatterji’s non-language preference record consists of 150 items and 3 pictures with each item. It measures the interest of everybody in ten broad interest areas.

Each item has three A, B, C, marked pictures. Students chooses a picture most liked and another picture least liked in each items. Most liked picture shows answer and least liked picture show negative answer.

There is no time limitation as has been prescribed in the manual C.N.P.R. 962.

Descriptions Of Interest Factors And Area In Chatterji’s Non-Language Test

- **FINE ARTS:** Interest in photography, designing, painting, both playing and listing to music.

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- **LITERARY WORK:** Interest in reading, learning studying, teaching, anything to do with language and books.
- **SCIENCE:** Interest in physics, chemistry, Laboratory work, Astronomy, including both studying and teaching science.
- **MEDICAL:** Interest in being a doctor, nurse or hospital worker of some sort.
- **AGRICULTURE:** Interest in growing plants, caring for animal and using agricultural tool and Apparatus.
- **TECHNICAL:** Interest in s repairing mechanical and electrical apparatus .Working in factories also in scientific Laboratories.
- **CRAFTS:** Interest in working with your hands, making and fixing things.
- **OUT DOORS:** Interest in an active, outdoor life dislike for sedentary work, closed rooms, etc.
- **SPORTS:** Interest in sports and in leading an active life.
- **HOUSE HOLD WORK:** Interest in decorative and creative work. Other work knitting, sewing, cooking.

Technical Information

- Validity with (K.P.R.) =+ .36 to .73 for different areas.
- Reliability

Table No.1 showing the reliability of ten C.N.P.R. 962 Scales calculated by using the Kuder Richardson Formula 21 (N= 1300)

S. No.	Field	Reliability	Max .possible score
1	Fine Arts	0.85	88
2	Literary	0.79	73
3	Scientific	0.93	90
4	Medical	0.95	91
5	Agricultural	0.69	80
6	Technical	0.86	78
7	Craft	0.76	76
8	Outdoor	0.93	90
9	Sports	0.91	94
10	Household work	0.81	84

Table No. 1

Abbreviation used in different area and tables:

RS=Raw Scores, S=Stanine, O=Outdoor, F=Fine Arts, Ag=Agricultural, C=Crafts

C=Categories, Lt=Literary, T=Technical, SP=Sports, SC=Scientific, HW=Household

M=Medical

Material Required:

1. Booklet
2. Response Sheet
3. Scoring Key
4. Manual for interpretation

Administration:

Students were given a copy of Preference record and a copy of response sheet. They were asked to read the direction given in the preference record booklet. Their difficulties if any, were solved, they were then to indicate their preference on the response sheet by putting a cross mark (x) in the appropriate place.

It was insured that students do their work independently. After completion of the test, answer sheets and booklets were collected.

Scoring:

The total number of crosses was written on the answer sheet in the space marked raw scores. Now the raw scores were converted into stanine scale with the help of Table-iii© given on page 7 of the examiner Manual of CNPR-962. The stanine scale is a standardized scale of nine points. Its range is from 1 to 9 (lowest and highest) and their average is always 5. The name is derived from standard nine.

Table No. 2, Table shows raw scores in different area of Interest in the table for each subject.

s.no	Name of students	F.	L.	SC	M.	A.	T.	C.	O.	SP	HW
1.	Bhanwar Lal	25	25	37	46	19	30	27	12	23	26
2.	Rajesh Gupta	7	7	11	12	6	17	13	14	28	23
3.	Mahesh Chandra	20	23	20	20	15	22	19	19	17	26
4.	Perm Chand	29	29	24	23	19	29	26	27	17	21
5.	Abdul Nasier	23	24	24	27	11	15	15	40	45	25
6.	Daya Shankar	27	25	30	31	23	18	15	30	35	23
7.	Raton LalBhati	29	23	26	34	23	29	25	28	28	23
8.	Kuldeep singh	24	16	19	23	16	30	27	24	24	18
9.	Dinesh Kumar	26	17	14	24	27	29	30	36	43	23
10.	Kamlesh Jain	22	33	22	31	26	29	17	25	20	22

Table No. 3, Showing the dividing points between various stanine in accumulated percentage

Interpretation	Stanine Grades	Accumulated Percentage
High	9	Above 90 %
Above average	8	Above 86% and below 96%
Above 77% and below 86%		
Average	6	Above 60% and below 77%
Above 40% and below 60%		Above 23% and below 40%
Below average	3	Above 11% and below 23%
		Above 4% and below 11%
Low	1	Below 4%

Table No. 4, Table shows raw scores converted in to stanine scale different area of Interest given below

s.no	Name of students	F.	L.	SC	M.	A.	T.	C.	O.	SP	
	HW										
1.	Bhanwar Lal	2	6	2	6	5	2	6	1	1	2
2.	Rajesh Gupta	1	1	1	1	1	1	1	1	2	1
3.	Mahesh Chandr	2	2	5	1	1	3	1	3	1	1
4.	Pram Chand	3	7	1	2	5	1	5	2	1	1
5.	Abdul Nasier	2	6	1	3	6	1	1	4	4	2
6.	Daye Shankar	3	6	1	3	7	1	1	3	4	2
7.	RatonLalBhati	2	3	5	1	2	7	1	5	5	2
8.	Kuldeep Singh	2	3	1	2	4	2	6	2	2	1
9.	Dinesh Kumar	3	4	1	2	8	1	6	3	4	1
10.	Kamlesh Jain	2	8	2	3	8	1	2	2	1	1

Table No. 5, Showing the 'rank of interest' of the each student in the subject (area) .

S.no	Name of students	Low	Below Average	Average	Above Average	High
1.	Bhanwar Lal		O, SP	F.SC.T.HW		A.L.M.C
2.	Rajesh Gupta		F.L.SC.	M.A.T.		SP
3.	Mahesh Chandra		SC.M.T.O.SP	F.HW.A.C.		L
4.	Pram Chand		SC.T.SP.HW	M.O.F		A.C. L.
5.	Abdul Nasier		SC.T.C.	F.HW.M		O, SP.L.A.
6.	Daye Shankar		SC.T.C.	HW.F.M.O.		SP.L.A.
7.	Raton Lal Bhati		SC.T.	M.O.SP.HW.F.		L.C.
8.	Kuldeep Singh		SC. HW.	F.M.T.O.SP.L.		A.C. A.
9.	Dinesh Kumar		SC.T.HW.	F.M.O.		L.SP.C. A.
10.	Kamlesh Jain		ST.SP.HW.	F.C.O. SC.M		L. A.

ANALYSIS

It was not possible to calculate the local norms in the form of stanine scores or Z-scores to interpret the result of student on different dimension of C.N.P.R.(962) because the test was administered on only ten students.

However it was found feasible to convert the raw scores with the help of manual norms, given for near most area for interpretation purpose. So norms given for different part of India in Table II (C) page 7 of examiner's manual of C.N.P.R – 962 were consulted for evaluating the raw scores for standard ones. Stanine scores in different area of interest are given in Table II for each subject.

Interpretation:

Interpretation of results may be done in three ways:

- ❖ Individual Interest
- ❖ Group Interest
- ❖ Area Wise Interest

Individual Interest :

The raw scores of interest pattern of this student, converted into stanine scores, revealed that, his stanine scores are limited up to average rank. He is average in four areas i.e. agriculture, literacy, Medical, craft . It reveals that this student has average interest in these areas. His stanine scores are below average in fine – arts, scientific, technical, and household affairs. It reveals that he has hardly much interest in subjects related to these areas. He has got low stanine score in outdoor and sports.

It short, because he has got average marks in the four areas out of ten subject areas , it may be said that without obtaining supplementary information about aptitude of the child, suitable educational guidance cannot be provided.

CASE- II:

The raw scores of interest converted into stanine scores of this student reveal, that his stanine scores are limited up to below average rank. He has below average interest in sports. He is low in nine areas i.e. Fine arts, Literary, Scientific, Medical, Agricultural, Technical, Craft, Outdoor and Household affairs.

In short, that without obtaining supplementary information about aptitudes of the child, suitable educational guidance cannot be provided.

CASE – III

This student has got average scores in literary work. He has below average scores on Fine Arts, Household, Agricultural and craft. He has also got low marks on scientific, medical, technical,

outdoor and sports work, therefore it can be said that he cannot make any progress in subject related to these areas.

CASE – IV

This student has got above average scores on literary. It reveals that the student is very much (not highly) interested in Literary area. Therefore, he cannot be recommended to study literary subjects. He has got average ranks on agricultural and crafts. He has got below average stanines on medical, outdoor and fine arts. He got low average score in scientific, technical, sports and household.

CASE- V

This student has got average ranking in four areas i.e. Outdoor, sports, literary and agriculture. It reveals that this student has average interest in these subject areas. His stanine scores are below average in Fine arts, Households and Medical. He has got low stanine scores in scientific, technical and crafts.

In short, because he has got average marks in these four areas out of ten subject areas, it may be said that without obtaining supplementary information about aptitudes of the child, suitable educational guidance cannot be provided.

CASE-6

This student has got average scores in three areas i.e. sports, literary and agricultural. It reveals that this student has average interest in these subject areas, literary and agriculture. It reveals that this student have average interest in these subject areas. He has got low statine scores in scientific, Technical and craft in short, because he has got average marks in the three areas out of the ten subject areas. It may be said that without obtaining supplementary information about aptitudes of the child, suitable educational guidance cannot be provided.

CASE-7

This student has got average scores on agriculture. . It reveals that this student is very much interested in agriculture. Therefore, he can be recommended to study agriculture subject. He has got average ranks in literary and craft. He has got below average marks on Medical, outdoor, sports, household and fine arts. He has got low stanine scores on scientific and technical areas.

CASE-8

This student has got average scores on agriculture and crafts. . He has got below average marks on the fine arts, Medical, technical, outdoor, sports, and literary work. He has got low stanine scores on scientific and household. Without obtaining supplementary information about aptitudes of the child, suitable educational guidance cannot be provided.

CASE-9

This student has got average scores on agriculture. . It reveals that this student is very much (not highly) interested in agriculture. . Therefore, he can be recommended to study agriculture subject. . He has got average ranks on literary, sports, and craft area. He has got below average marks on Medical, outdoor, and fine arts. He has got low stanine scores on scientific and technical and household areas.

CASE-10

This student has got average scores on agriculture and literary areas. It reveals that this student is very much (not highly) interested in literary and agriculture area. Therefore, he can be recommended to study agriculture and literary subject. He has got below average scores on fine arts, outdoor, scientific medical and craft area. He has got low stanine scores on sports, technical and household.

Table No.6, Table shows overall picture of the Group Interest in different areas

Stanine Grades	F	Lt	SC	M	Ag	T	C	O	Sp	Hw	Category
ix											High
Viii,vii		2			3						Above Average
Vi,v,iv		6		1	5		5	1	3		Average
Iii, ii	9	1	2	7	1	2	2	6	3	5	Below average
i	1	1	8	2	1	8	3	3	4	5	Low

Table-6 shows that group show high interest in agriculture and literary work. Group is average in craft.

Agriculture and literary also low average in scientific and technical.

Area wise Interest

If we rank the interest of group according to the grades in different area of interest on the basis of analysis, it may be concluded shows higher interest in Agriculture Literary and crafts and lower in scientific and Technical.

CONCLUSION

On the basis of above study we can say that interest of the group often students varies from one interest area to another. It shows the individual differences i.e. subjects show their interests in different areas.

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Conflict of Interests

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Constructivism: Paradigm Shift from Teacher Centered To Student Centered Approach

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ABSTRACT

Constructivism is a departure in thought about the nature of knowing, hence of learning and thus of teaching. Constructivists believe that knowledge and truth are constructed by people and therefore do not exist outside the human mind. Von Glaserfeld (1984) has written: “...*learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information.*” Constructivism requires a teacher to act as a facilitator whose main function is to help students become active participants in their learning and make meaningful connections between prior knowledge, new knowledge, and the processes involved in learning. Teachers, thus, need to have a sound understanding of what constructivism means to evaluate its promise and to use it knowledgeably and effectively. Hence, from a constructivist perspective, the primary responsibility of the teacher is to create and maintain a collaborative problem-solving environment, where students are allowed to construct their own knowledge, and the teacher acts as a facilitator and guide. In the constructivist model, students are urged to be actively involved in their own process of learning, on the assumption that individuals construct knowledge instead of receiving it from others. The way in which knowledge is conceived and acquired, the types of knowledge, skills, and activities emphasized, the role of the learner and the teacher, how goals are established: All of these factors are expressed differently from the constructivist perspective (Christie & Stone, 1999). This paper explicates some of the theoretical background of Constructivism and then presents.

Keywords: *Constructivism, Collaborative, Paradigm, Approach*

Constructivism “is the philosophy, or belief, that learners create their own knowledge based on interactions with their environment including their interactions with other people” (Draper, 2002, p. 522). It is based on the idea that learners must construct and reconstruct knowledge, in order to learn effectively. Indeed, this is the assertion in constructionist theories -We take a view of learning as a reconstruction rather than as a transmission of knowledge(and) ... extend the idea

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of manipulative materials to the idea that learning is most effective when part of an activity the learner experiences as constructing a meaningful product (Papert, 1989). Constructivism is considered to be a set of epistemological theories which are grounded in the belief that meaning is constructed in the minds of individuals through the cognitive processing of interactions in world. Constructivist theories include the notion that learning is active, social and situated in particular physical, social and cognitive contexts, that it involves the ongoing development of complex and interrelated mental structures, and that the construction of knowledge is, to a greater or lesser degree distributed across individuals, tools and artifacts.

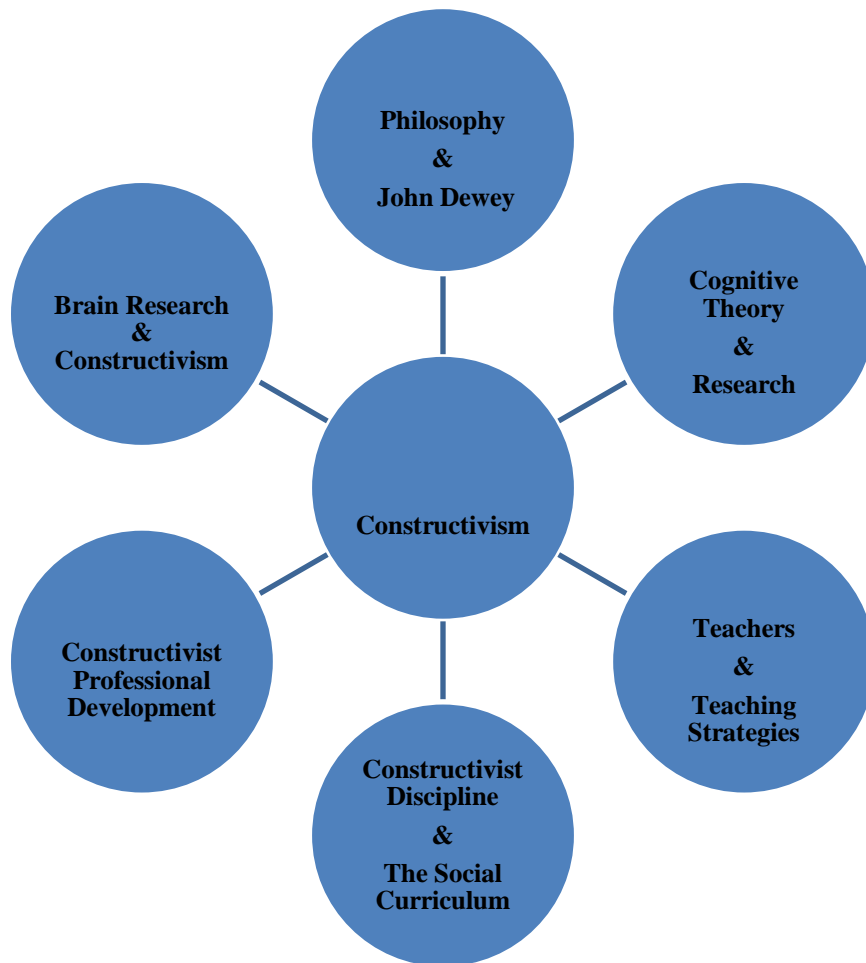
Constructivism is seen to have various implications for instruction, the most significant of which is to shift the focus of pedagogical design away from instruction and toward the design of learning environments that are learner-centered, knowledge-centered, assessment-centered, and community centered. Constructivism shifts emphasis from teaching to learning; focuses on knowledge construction, not reproduction; helps students develop processes, skills and attitudes; uses authentic tasks to engage learners; provides for meaningful, problem-based thinking; requires negotiation of meaning, reflection of prior and new knowledge; extends students beyond content presented to them. In the constructivist approach, the students are in the center of the teaching and learning process. They construct knowledge with stimuli from their surroundings and these constructs are mostly related with the way they perceive the environment. The tenets of constructivism can be summarized as following:

1. Individuals base their knowledge on their already existing conceptual frameworks. A learner's previous experiences with the world and life (physical, social or imaginary) represent a conceptual frame reference for giving meaning to new phenomena (Taylor, 1993).
2. The role of the teacher is mediating learning. Relevantly, the focus needs to be on the learner, and the classroom environment should be much more interactive than a traditional classroom.
3. The teacher as a mediator provides quality experiences to learners for meaningful learning. A constructivist approach involves providing experiences for learning in certain directions (i.e., viable knowledge) impossible without the guidance of a teacher.
4. Constructivism suggests that learning is a social process of giving meaning to experiences in light of the already known (Tobin & Tippins, 1993).
5. In the classroom the teacher should provide the students various opportunities such as writing, drawing, using symbols and the language appropriately to express their previous knowledge. Time for reflection is also essential during the course of a lecture.
6. Generating questions may be a way of initiating conceptual conflict and seeking answers to those questions may start the process of resolving the conflict. Establishing interactions for group discussions, answering questions with peers, explaining a certain scientific content, finding and explaining differences in understanding, generating new questions, designing research and solving problems may play a significant role in learning.

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7. According to the constructivist approach one of the most important roles of the teacher is evaluating learning. Rather than being in the form of reward or punishment at the end of the teaching, evaluation should be regarded as a part of the teaching process itself.

The development of constructivism in education can be visualized with the following graphic organizer designed by researchers (Ahad, Brockhuis, & Richardson, 2005).



Characteristics Of Constructive Learning

1. Multiple perspectives and representations of concepts and content are presented and encouraged.
2. Goals and objectives are derived by the student or in negotiation with the teacher or system.
3. Teachers serve in the role of guides, monitors, coaches, tutors and facilitators.
4. Activities, opportunities, tools and environments are provided to encourage meta-cognition, self-analysis, self-regulation, self-reflection & self-awareness.
5. The student plays a central role in mediating and controlling learning.
6. Learning situations, environments, skills, content and tasks are relevant, realistic, and authentic and represent the natural complexities of the 'real world'.

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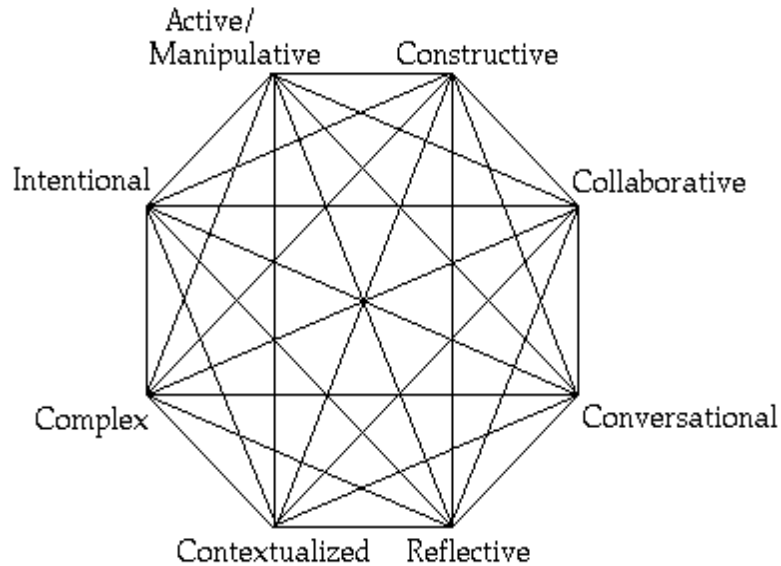
7. Primary sources of data are used in order to ensure authenticity and real-world complexity.
8. Knowledge construction and not reproduction is emphasized.
9. This construction takes place in individual contexts and through social negotiation, collaboration and experience.
10. The learner's previous knowledge constructions, beliefs and attitudes are considered in the knowledge construction process.
11. Problem-solving, higher-order thinking skills and deep understanding are emphasized.
12. Errors provide the opportunity for insight into students' previous knowledge constructions.
13. Exploration is a favored approach in order to encourage students to seek knowledge independently and to manage the pursuit of their goals.
14. Learners are provided with the opportunity for apprenticeship learning in which there is an increasing complexity of tasks, skills and knowledge acquisition.
15. Knowledge complexity is reflected in an emphasis on conceptual interrelatedness and interdisciplinary learning.
16. Collaborative and cooperative learning are favored in order to expose the learner to alternative viewpoints.
17. Scaffolding is facilitated to help students perform just beyond the limits of their ability.
18. Assessment is authentic and interwoven with teaching.

In the constructivist classroom, students work primarily in groups and learning and knowledge are interactive and dynamic. There is a great focus and emphasis on social and communication skills, as well as collaboration and exchange of ideas. This is contrary to the traditional classroom in which students work primarily alone, learning is achieved through repetition, and the subjects are strictly adhered to and are guided by a textbook.

Constructivist Learning Environment

The constructivist learning environment theory suggests a set of instructional methods including selecting and providing appropriate problems, related cases or worked examples, learner-selectable information, cognitive tools, collaborative tools, and social/contextual support. Learning occurs most effectively in context, which becomes an important part of the knowledge base (Jonassen, 1991). Instructional activities could involve modeling, coaching, and scaffolding in the constructivist learning environment. In summary, in the constructive learning environment, learning is collaborative, contextualized, and reflective.

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Goals For The Design Of Constructivist Learning Environment

Honebein (1996) describes the following goals for the design of constructivist learning environments:

1. Provide experience with the knowledge construction process.
2. Provide experience in and appreciation for multiple perspectives.
3. Embed learning in realistic and relevant contexts.
4. Encourage ownership and voice in the learning process.
5. Embed learning in social experience.
6. Encourage the use of multiple modes of representation.
7. Encourage self-awareness in the knowledge construction process.

Activities In Constructivist Classroom

Some of the activities encouraged in constructivist classrooms are:

- ❖ **Experimentation:** students individually perform an experiment and then come together as a class to discuss the results.
- ❖ **Research projects:** students research a topic and can present their findings to the class.
- ❖ **Field trips:** This allows students to put the concepts and ideas discussed in class in a real-world context. Field trips would often be followed by class discussions.
- ❖ **Films:** These provide visual context and thus bring another sense into the learning experience.
- ❖ **Class discussions:** This technique is used in all of the methods described above. It is one of the most important distinctions of constructivist teaching methods.

Role Of Teacher In Constructivist Learning Approach

The teacher must understand the students' preexisting conceptions, and guides the activity to address them and then build on them. They encourage students to constantly assess how the

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activity is helping them gain understanding. Constructivism requires a teacher to act as a facilitator whose main function is to help students become active participants in their learning and make meaningful connections between prior knowledge, new knowledge, and the processes involved in learning.



The teacher in constructive learning act as an expert learner who can guide students into adopting cognitive strategies such as self-testing, articulating understanding, asking probing questions, and reflection. Becoming a constructivist "requires a paradigm shift," as well as "the willing abandonment of familiar perspectives and practices and the adoption of new ones" (Brooks and Brooks, 1993). In constructivist learning, the teacher's function is to "arrange the conditions of learning" in such a way that students will learn what is intended (Gagne, 1985). Brooks and Brooks (1993) conceive of a constructivist teacher as someone who will:

1. encourage and accept student autonomy and initiative;
2. use a wide variety of materials, including raw data, primary sources, and interactive materials and encourage students to use them;
3. inquire about students' understandings of concepts before sharing his/her own understanding of those concepts;
4. encourage students to engage in dialogue with the teacher and with one another;
5. encourage student inquiry by asking thoughtful, open-ended questions and encourage students to ask questions to each other and seek elaboration of students' initial responses;
6. engage students in experiences that show contradictions to initial understandings and then encourage discussion;
7. provide time for students to construct relationships and create metaphors;
8. assess students' understanding through application and performance of open-structured tasks.

Hence, from a constructivist perspective, the primary responsibility of the teacher is to create and maintain a collaborative problem-solving environment, where students are allowed to construct their own knowledge, and the teacher acts as a facilitator and guide. The teachers should keep

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the following principles in mind while designing and developing the constructive learning environment in the classroom (Jonassen, 1991)

1. Create real-world environments that employ the context in which learning is relevant.
2. Focus on realistic approaches to solve real-world problems.
3. The instructor is a coach and analyzer of the strategies used to solve these problems.
4. Stress conceptual interrelatedness, providing multiple representations or perspectives on the content.
5. Instructional goals and objectives should be negotiated and not imposed.
6. Evaluation should serve as a self-analysis tool.
7. Provide tools and environments that help learners interpret the multiple perspectives of the world.
8. Learning should be internally controlled and mediated by the learner.

IMPLICATIONS OF CONSTRUCTIVISM FOR TEACHING AND LEARNING

Some of the implications of constructivism for teaching and learning are:

- ❖ Teachers act as facilitators, supports, guides and models of learning.
- ❖ Learning concerns in adjusting our mental models to accommodate new experiences.
- Learning concerns in making connections between information.
- Instruction should be built around more complex problems, not problems with clear, correct answers.
- Context and personal knowledge have high significance.
- Students should help in establishing the criteria on which their work is assessed.
- Student learning depends on background knowledge – that's why teaching facts are so necessary (reversed).
- Student interest and effort are more important than textbook content.
- ❖ It is sometimes better for teachers, not students, to decide what activities are to be done.
- Sense making and thinking are most important, not knowing content.
- Experimentation replaces rote learning.
- Teaching utilizes both skill-based and open-ended approaches.
- Motivation to learn is intrinsic rather than extrinsic (done for its own sake rather than for grades, test scores or rewards).
- Naïve beliefs are used as the starting point for further discussion, exploration and evaluation for development, rather than being discounted as “wrong”.
- Learners learn best through finding and generating their own knowledge.
- Discovery and guided discovery learning are important.
- Exploration and active learning are important.
- Learning is collaborative and cooperative, not just individual.
- Higher order thinking is significant.
- Classrooms become multidimensional, with different activities at different levels taking place simultaneously.

RECOMMENDATIONS

In order to implement this kind of learning approach, teachers need to be more equipped, skilled and confident to meet the current challenges and to adopt this approach, resources and funding must be provided to the schools, sufficient time and sincerity of teachers about managing independent/ discovery/ project learning along with all other structural demands must be insured, include perspectives in mainstream curriculum relevant to constructivist practices and according to student needs and interests so as to encourage their participation. This make certain maximizing the outcomes such as participation by ensuring the involvement of all stake holders related to the field of education in every stage of development, implementation and evaluation. This guaranteed the constructivist aspirations; preferences and practices take central place.

CONCLUSION

“Only as you begin to experiment with the new language will you realize just how entrenched and invisible the old paradigm is. But, as you and your faculty begin to speak the new language, you will then also begin to think and act out of the new paradigm.” Constructivist paradigm calls for a change in the classroom culture, attitudes, beliefs and practices. It is seen to have various implications for instruction, the most significant of which is to shift the focus of pedagogical design away from instruction and toward the design of learning environments that are learner-centered, knowledge-centered, assessment-centered, and community centered. Constructivism shifts emphasis from teaching to learning; focuses on knowledge construction, not reproduction; helps students develop processes, skills and attitudes; individualizes and contextualizes students’ learning experiences; considers students’ learning styles; provides for meaningful, problem-based thinking; requires negotiation of meaning, reflection of prior and new knowledge; extends students beyond content presented to them. Constructivism requires that we reflect on all aspects of the teaching in which we engage; as educators, we are learners ourselves. We must examine our planning, our use of external standards, the materials we use, the environment in our classroom, our own attitudes and expectations, and especially, the needs of our students, whether they be children or teachers. (Sparks, 1994).

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Conflict of Interests

The author declared no conflict of interests.

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To Study the Effectiveness of Positive Affirmation on Stress, Anxiety and Depression of Cardio Vascular Disease Female Patients

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ABSTRACT

This research paper is an attempt to study the effectiveness of positive affirmation on stress, anxiety and depression of cardio vascular disease female patients. The sample was consisted of 30 female subject of age group 35-80 year of age suffering from cardio vascular heart disease from at least 6 months or before. In the present study case record Sheet cum blood pressure symptom Checklist, Perceived Stress Scale (Sheldon (1983), Sinha's Comprehensive Anxiety Scale (A.K.P) and List of Affirmations were used. Mean, S.D and t-test were applied for data analysis. The results reveal there is significant effect of affirmations on stress, anxiety and depression of cardio vascular disease female patients.

Keywords: *Affirmation, Stress, Anxiety and Depression, Cardio Vascular Disease*

Stress is the process of adjusting to dealing with circumstances that disrupt or threaten to disrupt a person's physical or psychological functioning (Lazarus & Folkman 1984, Selye 1976). Stress involves a relationship between people and their environment- more specifically between stressors and stress reactions. Stress is a big problem in our society. Some 75% present of policy disease is said to be stress-related for example stress is often a factor in heart disease and cancer two of the leading causes of death. Stressors are events and situations to which people must react. Stress reactions are the physical, psychological and behavioral responses. In simple words stress refers to an individual reaction to a disturbing factor in the environment. A stress reaction begins with the same autonomic nervous system arousal that occurs during emotion.

Anxiety

Anxiety is a mood state characterized by marked negative affect bodily symptoms of tension and apprehension about the future (**American Psychiatric Association 1994, Barlow 1988 in Press**). Anxiety refers to feelings of apprehension, dread or uneasiness. Anxiety is a physiological state characterized by cognitive, emotional, and behavioural, somatic, components.

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These components combines to create the feeling the use typically recognize as fear apprehensive or worry. Anxiety is often accompanied by physical sensations such as heart palpitations, nausea chest pain, shortness of breath, stomach aches or headache the cognitive components entails' expectation of a diffuse and certain danger. Somatically the body prepares the organism to deal with threat (known as an emergency reaction) blood pressure and heart rate are increased, sweating is increased, blood flow to the major muscle groups is increased and immune and digestive system function are inhibited. Anxiety is part parcel of human existence. All people feel it in moderate degrees and in moderate degrees it is an adaptive response. In the words of one researcher "without it we would probably all be asleep at our desks." (**Stephen M.Paul, quoted in schmeck 1982**). For these people it is not an adaptive response. It is a source of extreme distress, relievable only by strategies that limit freedom and flexibility.

Finally in obsessive compulsive disorder Anxiety occurs if the person does not engage in some though or behaviour that otherwise serves no purpose and infact be unpleasant, embarrassing and inconvenient.

Depression

Depression is the state of despondency marked by feelings of powerlessness and hopelessness, it is one of the most widespread emotional problems, and is undoubtedly has many causes. Depression covers a variety of negative moods and behavior changes. Some are normal mood fluctuations and others meet the definition of clinical problems. The mood change may be temporary or long lasting. It may range from a relatively minor feeling of melancholy to a deeply negative view of the world and an inability to function effectively. Many people use the word "depression" to explain these kinds of feelings, but depression is much more than just sadness. Some depressed people don't feel sad at all – they may feel lifeless, empty, and apathetic, or men in particular causes of Depression.

Coronary Heart Disease (CSD)

Coronary heart disease is the general term that refers to illness caused by atherosclerosis, the narrowing of the coronary arteries, the vessels that supply the heart with blood when these vessels become narrowed or closed. The flow of oxygen and nourishment to the heart is partially or completely obstructed. Temporary shortage of oxygen and nourishment frequently cause pain, called angina pectoris that radiates the chest and arm. When severe deprivation occurs, a heart attack (myocardial infarction) can result. Risk factor of cardio vascular disease includes high blood pressure, diabetes, cigarette smoking, smoking, high serum cholesterol level, and low levels of physical activity (American Heart Association 2009).

Affirmation: Affirmation refers to the practice of positive thinking. It is a carefully formed statement that should be repeated to one's self and written down frequently."

To Study the Effectiveness of Positive Affirmation on Stress, Anxiety and Depression of Cardio Vascular Disease Female Patients

Anne et al. (2005) conducted a study on anxiety, depression and psychosocial stress in patients with cardiac events. Results revealed that anxiety, depression and stress levels are significantly increased among cardiac patients.

Day et al. (2005) investigated the effect of anxiety and depression on heart disease. They conclude that mood state influences cardiac patients' beliefs about the causes of their heart disease.

Esch et al. (2002) investigated stress in cardiovascular diseases. They found Stress has a major impact on circulatory system and plays significant role in susceptibility, progress, and outcome of cardiovascular diseases.

Kewley et al. (1987) investigated psychological predictors of heart disease. Results revealed that not only depression but anger, hostility, aggression and anxiety also related reliably to coronary heart disease

Nam et al. (2008) findings showed the characteristic patterns of CBF changes in depressive ESRD patients having maintenance dialysis. Further investigations in brain blood flow and glucose metabolism are needed to elucidate the effect of dialysis itself and the difference of according to dialysis modality in patients having depression and ESRD.

Pearson et al. (2012) suggest that depression is not, at a sympathetic level at least, associated with insensitivity to infant distress and rather depression may be associated with and abnormally sensitive response.

Robin (1986) suggest that even among elderly people outside of nursing homes or other institutions a sense of personal control and optimistic outlook have been associated with resistance to disease.

Kop and Krantz (1997) studied hostile men and women who were harassed while trying to perform a difficult mental task. The stress caused an unusually strong activation of the fight or flight response in these people and, when challenged they displayed significantly greater cardiovascular reactivity in the form of larger increases in blood pressure and greater outpourings of epinephrine, cortisol and other stress hormones.

Some studies have found stress as a direct cause of cardiovascular disorders, leads to higher rates of the risk factors for cardiovascular disease (Peter et al., 1998; Peter & Siegrist, 1997).

Abdou Elhendy, Arend F. L. Schinkel, Ron T. van Domburg, Jeroen J. Bax and Don Poldermans (2004) suggested heart failure is a major cause of morbidity and death in patents with coronary artery disease (CAD). The aim of this study was to define the incidence and predictors of heart failure during long-term follow up in patients with suspected CAD referred for stress myocardial perfusion imaging

METHODOLOGY

Statement of Problem:-

To study the effectiveness of positive affirmation on stress, anxiety and depression of Cardio vascular disease female Patients

To Study the Effectiveness of Positive Affirmation on Stress, Anxiety and Depression of Cardio Vascular Disease Female Patients

Objective

From the above research problem following objectives were constructed:

1. To study the effectiveness of positive affirmations on stress of cardio vascular disease female patients.
2. To study the effectiveness of positive affirmations on anxiety of cardio vascular disease female patients.
3. To study the effectiveness of positive affirmations on depression cardio vascular disease female patients.

Hypotheses

In line with the above objective following hypotheses were formulated:

1. There will be no significant effect of affirmations on stress of cardio vascular disease female patients.
2. There will be no significant effect of affirmations on anxiety of cardio vascular disease female patient.
3. There will be no significant effect of affirmations on depression of cardio vascular disease female patients

Sampling

The sample was consisted of 30 female subject of age group 35-80 year of age suffering from cardio vascular heart disease from at least 6 months or before.

Collection of data

The subjects were taken from metro heart centre and locality of Meerut city after screening of case records of hospital and screening of blood pressure patients from locality. The selected subjects according to criteria of the research were randomly assigned to controlled and experimental groups of heart disease and blood pressure.

Measuring tools

In the present study following tools were used for data collection.

- Case record Sheet Cum B P symptom Checklist
- Perceived Stress Scale (Sheldon (1983).
- Sinha's Comprehensive Anxiety Scale (A.K.P)
- List of Affirmations.

Description of tools

Case Record Sheet: In the case record sheet general information about the patient like name, age, gender person etc were taken. In the blood pressure symptom checklist 10 items for low

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B.P. and 15 items for high blood pressure were items were constructed on the basis of symptoms of B.P.

For the content and constructed to screen the patients suffering from high and low blood pressure. The face validity of the checklist the items were cross checked by MBBS and MD physicians Practioner.

Depression: Item Construction: The ADI is one such scale developed on the basis of symptoms and signs of the depression as manifested by Indian patients (Singh, et al. 1974). It consists of a total of 30 statements, which the subject has to tick as either present or absent. The total 'Yes' responses reflect the presence and severity. It was therefore considered important to validate the scale against the HRS and soluble clinical assessment by a trained psychiatrist. Reliability calculated through split half method= 0.82 using N=60 subject. Validity was assessed by correlation with the clinical diagnosis worked out at 0.75 compared.

Perceived Stress Scale:

Perceived Stress Scale constructed by Sheldon Cohen in 1983. The scale has self-report instrument with a five point scale. 0= never, 1= almost, 2= some time, 3= fairly often, 4= very often. Scoring was done in reversing responses (e.g.0=4, 1=3, 2=2, 3=1, and 4=0) to the four positively stated items (4, 5, 7, 8) and summing across all scale items.

Sinha Comprehensive Anxiety Scale:

Sinha Comprehensive Anxiety Scale constructed by A.K.P.L Sinha and L.N.K. Sinha (Patna) this test is a self report instrument with yes and no response with 90 items. In present tests was done as 1 for Yes and 0 for No responses. The sum of the entire positive or yes responses would be the total anxiety scores of the individual. Reliability of the test was measured by test-retest method found (0.85) and by spearman brown formula found 0.92. Both the values ensure a high reliability to the test. The coefficient of validity was determined by computing the (coefficient between scores on comprehensive anxiety trust and on Taylor's manifest anxiety is significant beyond .001 level of confidence.

RESULTS

The present study was an attempt to explore the effect of affirmation on stress, anxiety, depression of cardio vascular disease female patients.

For this purpose 30 female Ss of age group 35-60 year were selected. There Ss were divided into two groups of experimental (25 Ss) and enrolled group (20 Ss). Data were collected with the help of case record sheet and standardized tools. The experimental group was affirmation for one and half months and control group was kept void of it. Before given affirmation pre treatment data was collected from both groups and the post treatment data was analyzed by mean. S.D and t-test obtained result are shown in the following table.

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Table-1, Showing pre and post scores of experimental group

S.No.		Pre-treatment		Post-treatment		t-score	Reduction
		Mean	S.D.	Mean	S.D		
1	Stress	20.13	4.56	10.93	3.49	15.66**	45.70%
2	Anxiety	58.66	6.87	29.73	7.37	16.43**	49.31
3	Depression	16.26	3.91	8.73	2.60	13.89**	46.30

Table-2, Showing the mean, S.D and t-scores of control group

S.No.		Pre		Post		t-score	Reduction
		Mean	S.D.	Mean	S.D		
1	Stress	21.46	2.92	21.06	3.53	.79	1.86
2	Anxiety	52.00	10.26	52.46	9.99	.529	0.88
3	Depression	17.26	4.16	16.93	3.19	0.572	1.91

DISCUSSION

In the present study our findings suggested that there is significant effect of affirmations on stress, anxiety and depression of cardio vascular disease female patients. All results are shown in tables. From the table 1 it is obtained the mean pre treatment stress score of the experimental group the (M=20.13, S.D. = 4.56) was significantly higher as component to post mean stress score (M=10.93, S.D. = 3.49), which showing a percentage reduction of 45.70%. The obtained t-value indicated that the two scores (Pre treatment and Post treatment scores) differ significantly at .01 level of significance [t (df =14) =15.66, pZ.01] in reducing level of stress from 20.13 to 10.93.

It means affirmation was significantly effective. Thus the null hypothesis that there will be no significantly effect of positive affirmations on stress of cardio vascular disease patients is rejected and the substantive hypothesis that there would a significant effect of positive affirmation on stress of cardio vascular disease patients is accepted.

Anxiety & Affirmation

In the same table-1 obtained mean pre treatment anxiety score of experimental group was significantly higher than the (M=58.66, S.D. = 6.87) and post mean anxiety score (M=29.73; S.D.=7.37) and the obtained t-value show a significant which difference between the pre & post treatment score at .01 level of significance with a percentage reduction of 41.30%.

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It means that positive affirmation was also significantly effective for reduction of Anxiety of cardio vascular disease patients. Thus, the null hypothesis that there will be no significantly effect of positive affirmation therapy on anxiety of blood pressure and cardio vascular disease patients is rejected and it held that there would a significant effect of positive affirmation on anxiety of cardio vascular disease patients.

Depression & Affirmation

Table-1 also express the mean pre treatment depression score of the experimental group was (M=16.26, S.D = 3.91) which was quite higher than mean depression score (M=8.73, S.D=2.60) and obtained t-value showing a significant difference between pre & post scores at .01 level of significance with a percentage reduction of 46.30%. ($t(df=14)=13.89$; $P<.01$).

It means that positive affirmation was significantly effective in reducing depression of in cardio vascular disease patients. Thus, the null hypothesis that there will be no significantly effects of positive affirmation therapy on depression of cardio vascular disease patients was rejected and the hypothesis that there would a significant effect of positive affirmation on depression of Blood Pressure and cardio vascular disease patients is accepted.

From table-2 it was obtained that mean pre stress score of the control group was more or less equals to (M=21.46, S.D.=2.92) and post mean score (M=21.06, SD= 3.53) and obtained t-value was showing on insignificant difference between the two score ($t(df=14) .79$) with the poor percentage of 1.86%.

It means that no reduction in the level of stress was obtained in cardio vascular disease patients in other words pre and post score of control group were more or patients. Continued with similar stress level after on half months thus, the null hypothesis there will be no significant changes in level of stress of cardio vascular and the substantive hypothesis that there would a significant changes in level of stress in control group of cardio vascular disease patients is rejected the obtained t-value [$t(df=14) .79$, $P>.01$]

From table -2 it was obtained that mean pre anxiety score of the control groups was more or less equals to (M=52.00, S.D=10.26) and post mean score [M=52.46, S.D=9.99] and obtained t-value was showing on insignificant difference between the two score [$t(df=14) .529$] with the poor percentage of .887.

It mean that no reduction in the level of anxiety was obtained in cardio vascular disease patients groups were more or less similar and in the absence of affirmation cardio vascular disease patients continued with similar Anxiety level after one and half months. Thus the null hypothesis there will be no significant changes in level of Anxiety of cardio vascular disease patients will be

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observed accepted and the substantive hypothesis that there would a significant changes in level of anxiety in control group of cardio vascular disease patient is rejected the obtained it value [$t(df=47)=.79, P>.01$].

From table -2 it was obtained that mean pre depression score of the control groups was more or less equals to ($M=17.26, S.D=4.16$) and post mean score [$M=16.93, S.D=3.19$] and obtained t-value was showing on insignificant difference between the two score [$t(df=14) .572$] with the poor percentage of 1.91.

It mean that no reduction in the level of depression was obtained in cardio vascular disease patients in other words pre and post score of control group were more or less similar and in the absence of affirmation cardio vascular disease patients continued with similar depression level after one and half months. Thus the null hypothesis there will be no significant changes in level of Depression in control group of cardio vascular disease patients is rejected the obtained t-value [$t(df=14= .572; P>.01$].

CONCLUSION

The present study was aimed to investigate the effectiveness of affirmation on stress, anxiety, and depression of cardio vascular disease female patients. Through the results and discussion it can be concluded that affirmation was significantly effective therapy for reducing stress anxiety depression of cardio vascular disease female patients.

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Conflict of Interests

The author declared no conflict of interests.

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Lifestyle Patterns and its Association to Perceived Social Support and Self- Efficacy in Adolescent's Lifestyle

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ABSTRACT

Adolescents form two-thirds of our population. The lifestyle patterns established during early years have an important implication on health and well-being. Hence adolescent's life style patterns are crucial to understand and study. The objective of the present research article is to understand the association of lifestyle pattern to perceived social support and self - efficacy among adolescents. The sample for the study included 170 adolescent boys and girls from the age group of 16-19 comprising of rural and urban population collected using purposive sampling method. Personal Lifestyle Questionnaire, the Multidimensional Perceived Social Support Scale (MPSS) and the General Self- Efficacy Scale (GSE) were used as research tools. The results of the study helps to understand the life style patterns among adolescents and also the difference in life style patterns across gender and place of living. Also there is relationship between social support and self-efficacy with life style pattern. The study highlights the influence of social and psychological factors in development of lifestyle patterns. The findings also imply that strengthening of healthy life style patterns is possible by effective intervention in psycho-social domain, also health compromising behaviours and life style patterns can also be worked upon in similar ways.

Keywords: *Adolescents, Life Style, Self-Efficacy, Perceived Social Support, Health*

Adolescents are a distinctive group of people with special concerns and needs (Qidwai, Ishaque, Shah, & Rahim, 2010). The term "adolescence" come from the Latin word "adolescence", which means 'to grow' or 'to grow to maturity'. As the term "adolescence" is used these days, it has much wider meaning and includes emotional, social and mental as well as physical maturity. Adolescence is an exceptionally enthusiastic, energetic, joyous and fun loving period. The exact start and end of adolescence are arbitrary, but it is at this period when puberty brings about physical changes, gender role definition gets intensified and boys and girls move from childhood to adult roles as wife/husband, mother/father, worker and citizen. Adolescent's is a significant

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stage of life when lifestyle behaviours such as dietary habits are shaped and become established. The lifestyle patterns are established during early years have a vital implication on health and wellbeing (Allafi et al., 2013).

Adolescence is the zenith age of beginning for serious mental illness like depression and psychosis. It is well documented that behaviours developed during this phase influence health in adulthood (Khan, 2000). Several health compromising behaviours (e.g. smoking, alcohol) as well as health enhancing behaviours (e.g. physical exercise) is adopted in adolescence and they often continue into adulthood (Achanbach, 1983). The World Health Organization estimates that 70% of untimely deaths among adults are due to behaviours (smoking, illicit drug) A psychosocial cause that affects health-promoting behaviours and healthy lifestyles is social support (Coey-Boerner, 2010). There are so several definitions for social support. Most theorists view social support as way of giving, perceiving, or receiving help from those individuals in a relationship with each other (Barrera, 1986; Cohen & Syme, 1985; Weiss, 1974).g use, reckless driving) initiated during adolescence (Ali, 2009). Social support affects physical and mental health through its control on cognition, emotions, and behaviours. . Being a part of the social network may cause an individual to own up the responsibility to take care of themselves so they may take care of others. Interactions with others also tend to increase positive affect and motivate individuals to care for themselves. According to the view of social identity theorists, social support can be health-promoting because it facilitates loyalty to medical regimens (DiMatteo, 2004 in Coey-Boerner, 2010). They also think that social support can also be health-promoting because it facilitates healthy behaviours, such as eating well, exercise, and not smoking (Uchino, 2004 in Coey-Boerner, 2010).

Bandura (2001) defined self-efficacy as the belief individuals have about the ability to control their actions and behaviours to generate desired results and outcomes. According to Bandura (1981), self-efficacy develops from four sources of information: performance accomplishments, vicarious experience, verbal persuasion and emotional arousal. Self-efficacy as a social psychology concept has been utilized in nursing literature as a forecaster for the probability of an individual engaging in health behaviours. Self-efficacy appeared as a major determinant of engaging in health promoting or health compromising behaviours. In the model development and replicated testing studies self-efficacy was recognised in the model as a powerful determinant of an adolescent choosing to engage in health promoting behaviours. Self- efficacy was a significant determinant because the ability to identify all options and their penalties enables and authorises one to make informed choices (Hendricks, 1997).

So through this research the researcher is understanding the role of perceived social support and self efficacy in adolescent's lifestyle which can lead either good or bad lifestyle due to the

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decrease or increase in any of these variables and which will help in future to plan the intervention by considering all these factors.

Rationale and Significance of the Study

Interventions based around particular behaviour that are targeted at the individual level may fail, to harvest desirable behaviour changes when social factors (for example level of family support) act together with personal factor (for example, self–efficacy) to influence the progress. Extensive social work research and theory on the social and environmental aspects that influence health (Ell, 1984; Hurdle, 2001; Gehlert, 2008) suggest that effective plans to change individual health behaviour will require a multidimensional approach, including attempts to involve in key social relationships as supporters of positive change in dietary practices, exercise and to stop smoking. Through this research the researcher is looking at the adolescent's lifestyle pattern from the biopsychosocial model which looks at the issue from different dimensions such as biological, psychological and sociological perspective which might be of help in making an effective intervention for improving the lifestyle of the adolescents. A study of this nature will also lend support to researches similar to those being conducted and also combination of these variables would predict the level of healthy lifestyle of the individuals thus enabling the adolescents and parents in particular to do a rethink on their present lifestyles and take appropriate measures.

Objective

- Understanding the association of lifestyle pattern to perceived social support and self - efficacy among adolescents
- To understand whether there is any significant difference in lifestyle pattern in the adolescents from rural and urban population
- To understand the gender difference in lifestyle pattern

Hypothesis

H1: Lifestyle pattern of adolescents would be significantly associated to perceived social support and self - efficacy

H2: Lifestyle patterns of adolescents from rural and population will be significantly different

H3: There will be significant difference in the lifestyle pattern of boys and girls.

METHODS

Sample

The sample for the study was 200 i.e.110 adolescent boys and 90 girls from the age group of 16-19. The sample was collected from both rural and urban population. The technique used to collect sample was purposive sampling

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Inclusion Criteria

- Adolescents of the age group of 16-19 years
- Adolescents who are from upper, middle and low income families
- Adolescents from urban and rural area

Exclusion Criteria

- Adolescents with any physical or mental difficulty

Tools Used

Personal lifestyle questionnaire (Brown & Muhlenkamp, 1983). It's a self-report instrument used to measure the positive health practices of individuals (Brown, Muhlenkamp, Fox, & Osborn, 1983). The 24-item scale consists of statements reflective of activities individuals engage in to protect their health. The activities, categorized into six dimensions, are (a) nutrition, (b) exercise, (c) relaxation, (d) safety, (e) avoidance of substance use, and (f) health promotion. The engagement in these positive health behaviours are measured on a 4-point Likert scale where 4 is (*almost always*), 3 (*occasionally*), 2 (*infrequently*), and 1 (*never*). Internal consistency reliability of the PLQ was demonstrated when a coefficient alpha of .77 was reported by Ayres (2008), in a sample of 204 middle adolescents, aged 15-17. Ayres and Mahat (2012) reported a coefficient alpha of .72 in a sample of 163 college students aged 18 to 21. Initial test-retest reliability was confirmed by Brown et al., (1983) within a four-week interval ($r = .78$) and again for a three-week interval ($r = .88$). Face validity was also done by the two other teachers from the department.

The multidimensional perceived social support scale (MPSS) (Zimet, Dahlem, Zimet & Farley, 1988). Tool is a 12 item rating scale made on 7 point Likert-type scale ranging from Very Strongly Disagree, Strongly Disagree, Mildly Disagree, Neutral, Mildly Agree, Strongly Agree, Very Strongly Agree. The 12 items of MPSS was designed to measure the perceived adequacy of support from the following three sources: family items (3,4,8 and 11) friends (6,7,9 and 12) and significant other's (1,2,5 and 10). The MPSS was found to have good reliability across the subject groups. The reliability of the scale is found to be .81 to .90 in the previous tests. In addition, strong validity was demonstrated confirming the three subscale structures of MPSS.

The general self – efficacy scale (GSE) (Schwarzer & Jerusalem, 1995). The scale is generally self-administered, with 10 items. Responses are made on a 4-point scale. Sum up the responses to all 10 items to yield the final combined score with a range from 10 to 40. Reliability of the scale is samples from 23 nations, Cronbach's alphas ranged from .76 to .90, with the majority in the high .80s. The scale is unidimensional. Validity of the scale is Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favourable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints. In studies with cardiac

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patients, their recovery over a half-year time period could be predicted by pre-surgery self-efficacy

Procedure

Permission was requested from every institution before conducting the sampling. The participants were selected from different schools in Bangalore and Kerala. After which the informed consent was taken from all the adolescents who agreed to be part of the research. The participant's was given the questionnaire to be filled. After they completed the questionnaire it was collected back.

Data Analysis

Correlation is used to get the statistical value that measure and describes the direction and degree of relationship between two variables and T- test is used to see the difference between two groups. The analysis was done using SPSS v.20

Ethical Consideration

Approval from the institutional was taken before the research was conducted. The current research did not cause any physical or mental harm to the participants. The information given by the sample was maintained confidential and was not disclosed to anyone without the permission of the sample. The sample was informed about what the research is all about and Informed consent was taken from the sample before the research is conducted. The sample was not compelled to participate in the research. The sample was given the opportunity to decide whether to be a part of the study or not. At any point during the research the participant could back out from being a participant of the research

RESULTS

Table No: 1 Details of Demographic Variables

Variables	Category	N	Percentage
Place of Residence	Urban	95	47.5%
	Rural	105	52.5%
Gender	Male	110	55%
	Female	90	45%
Age	16	65	32.5%
	17	59	29.5%
	18	50	25%
	19	26	13%
Educational Qualification	1 st PU	72	36%
	2 nd PU	60	30%
	First year Degree	68	34%

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The sample size was 200 and out of which it was 110 adolescent boys which constituted the 55% of the data and 90 adolescent girls which was 45% of the data. The sample was collected from both urban and rural area. The urban population constituted of 95 which were 47% of the data and rural population which was 105 and it constituted 52.5% Of the data. The data was collected from the adolescents who were in the age of 16- 19. Most of the sample belonged to the age of 16 i.e. 32.5% of the total sample. Then 29.5% of the sample which belonged to the age of 17 filled the questionnaire. Followed by them samples of age 18 filled the questionnaire which was 13% and lastly people of age 19 which were 13% of the sample filled the tools

Adolescent's lifestyle which was measured using Personal Lifestyle Questionnaire (PLQ) had a score ranging from 51 to 81 ($M=6.55$, $S.D= 7.91$). On the part of Multidimensional Scale Of Perceived Social Support had scores ranging from 4 to 28 on the subscale which measured the influence of Significant others ($M=2.27$, $SD= 5.36$), on the subscale which measured the influence of family had the scores range from 10 to 28 ($M=2.45$, $SD=3.89$) and on the last subscale of the Multidimensional Scale of perceived Social Support (MPSS) which measured the influence of Friends had scores ranging from 7 to 28 ($M= 2.33$, $SD= 4.10$). On the General Self – Efficacy Scale (GSE) which measured the individuals self – efficacy beliefs the participants got a score ranging from 17 to 40 ($M=3.07$, $SD= 4.78$).

Table No: 2- Table showing the result of Spearman's Correlation for Perceived Social Support, Self – Efficacy and Adolescent's Lifestyle

Spearman's rho		Family	Friends	Self-Efficacy	Adolescents lifestyle
Variables	Correlation coefficient	.329**	.444**	.228**	.126
	Sig.(2-tailed)	.000	.000	.001	.075

*. Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 1 stated that the lifestyle pattern of adolescents would be significantly associated to perceived social support and self-efficacy. Spearman correlation was run to assess the relationship between self – efficacy and perceived social support in adolescent's lifestyle aged 16-19 years. Preliminary analyses showed that the variable adolescent's lifestyle is not normally distributed, as assessed by Shapiro-Wilk test ($p > .05$). There was a moderately positive correlation between the perceived social support and adolescent's lifestyle. Under the scale of perceived social support it had three subscales which measured the influence of significant others, family and friends. It was found that family had a score of (r_{199})=.32, $p>0.05$ and friends had a score of (r_{199})= .44, $p>0.05$. Thus the results say that friends and family has moderate positive correlation to the adolescent's lifestyle and significant others has no significant relation

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with the adolescent's lifestyle. There is a positive correlation between the Self – efficacy and adolescent's lifestyle, (r_{199})=.228, $p>0.05$.

Hypothesis 2 stated that lifestyle patterns of adolescents from rural and population will be significantly different. The sample size from rural population was 105 and 95 from urban population. Table 4 shows the result of the t- test. An independent sample t-test was run to assess this hypothesis and was found adolescents from urban population had (6.57 ± 9.05) and (6.54 ± 6.78) for rural population a statistically significant difference of 2.6, $t(198)=.294$, $p=.769$. There was no significant difference found in the lifestyle patterns of urban and rural population.

Table: 3, Results of t-test for the urban and rural population

Adolescents Lifestyle	Place	N	Mean	SD	T	df	p
	Urban	94	6.57	9.05	.294	198	.769
	Rural	106	6.54	6.78			

Hypothesis 3 states that there will be significant difference in the lifestyle pattern of boy and girls. An independent sample t-test was run to assess this hypothesis and male adolescent had a higher score of (6.81 ± 7.81) and females lifestyle score was (6.32 ± 7.30), and a statistical significant difference 5.3, $t(198)=4.55$, $p=0.01$. Statistically difference was found between the males and females lifestyle and males were found to have a better lifestyle than females. Table 5 shows the result for the gender difference.

Table: 4, Results of t-test for gender differences in lifestyle

Adolescents Lifestyle	Gender	N	Mean	SD	t	df	p
	Male	95	6.81	7.81	4.55	198	0.01
	Female	105	6.32	7.30			

DISCUSSION

Adolescent populace and health of teenagers is a completely special issue and is center of global attention for numerous reasons. The world at present is home to the largest generation of 10–19 year olds in our records and figures over one million and their populace is continuously increasing (Qidwai, Ishaque , Shah & Rahim , 2010).The needs on young human beings are new and unheard of; their parents won't be able to predict the various pressures they face. How we help adolescent's met those demands and equips them with the form of education, competencies, and outlook they may want in a changing surroundings will rely upon how properly we apprehend the world around us (Qidwai, Ishaque , Shah & Rahim , 2010).So in this research the researcher is trying to find out the effect of perceived social support and self – efficacy in

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adolescents lifestyle. Adolescence is a critical period of human life and young people might also stumble upon issues that could affect them for the rest in their lives. Family has a fundamental position in diverse aspects of the health of young people (Parvizy & Ahmadi, 2009).

Research saysthat adolescent's behaviors are influenced by the individual, peer, circle of relatives, school, network, and societal tiers. Because many sectors of society make an effective contribution to adolescent health, protection, and well-being, and an collaborative attempt that engages more than one of these partners is necessary (U.S Department of Health and Human Service, 2015). When the spearman correlation test was administered on the association between self - efficacy and adolescents lifestyle a positive correlation was found between the variables.

According to the theorists (Cohen, 1988; Langlie, 1977; Lewis & Rook, 1999; Pender & Stein, 2002; Umberson, 1987 as in Gage, 2014) belonging to a social group that shares similar social characteristics and norms provides information or aids engagement in health-promoting behaviors such as exercise, seat belt use, good nutrition, proper sleep, medical care, and appropriate cigarette and alcohol usage (Gage, 2014). Several theorists suggested that self-efficacy develops within a supportive environment which includes verbal reinforcement, positive academic and social models, mutual respect, emotional support, and social connectedness (Schunk&Meece, 2005; Caprara, Scabini& Regalia, 2006 as cited in Gage, 2014). Bandura (1986) suggested that self-efficacy is influenced by support received from others that convince individuals that they can succeed in performing difficult tasks through the confidence that is instilled in them by others to accomplish such tasks (Gage, 2014).

The health of a population can be measured along many dimensions by indicators that reflect mortality, morbidity, overall well-being, lifestyle behaviours, and other health-related risk factors. While rural–urban differences do not exist for some health measures, and some adverse health measures are highest in urban areas (e.g., homicide), (Eberhardt & Pamuk, 2004).We examined health measures that showed a health disadvantage in rural areas. Moreover, research indicates that rural–urban health patterns are not always monotonic; often, the most rural and the most urban areas have higher rates of adverse health when compared with suburban areas (Eberhardt & Pamuk, 2004).

The place of residence didn't actually matter in the lifestyle of adolescents. The rural population is also coming on in equal terms with regard to the developments in urban areas which are being reflected in the other. The impact of globalization has been felt by the Indian rural market as much as the urban counterpart. Hence, we can see that today changes are taking place rapidly in all walks of life and rural areas are no exception to this. Improved infrastructure facilities, economic liberalization, renewed emphasis on agribusiness and small industries, fast changing agricultural technology, scope for commercialization of agriculture, greater budgetary provision

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for rural people are few reasons to mention (K, 2014). Moreover, various socio-cultural, psychological and political aspects of rural life are also changing. India's real culture is still preserved in rural life even though the advancement of technology has much influence in rural areas. People still prefer to wear dresses of old fashion and celebrate festivals in old styles. Folk dances and folk songs are still popular among villagers. Meanwhile the villagers have awareness and culture is touched and affected by western influence (K, 2014).

Self-reported studies of physical activity show that girls are less active than boys and girls have different nutritional preferences than boys and girls using different stress management skills than boys (Saffari et al., 2013). So, recognizing lifestyle as a whole in two genders can help to understanding various lifestyle patterns in adolescents and identify the best method for behaviour modification (Saffari et al., 2013). An independent sample t-test was used to see if there is any significant difference in the lifestyle pattern of boy and girls. The results implicated that male adolescents had a better lifestyle than the female adolescents. Furthermore, considerable gender differences can be found with relation to health-related behaviour, both in adults and in adolescents. Generally, males exhibit more health-risk and less health-protective behaviour than females (Qidwai, Ishaque , Shah & Rahim , 2010). However, in recent years some studies have reported a remarkable increase in smoking among women (Qidwai, Ishaque, Shah & Rahim, 2010).

Adolescent's behaviours are influenced by the individual, peer, circle of relatives, school, network, and societal tiers. Because many sectors of society make an effective contribution to adolescent health, protection, and well-being, and a collaborative attempt that engages more than one of these partners is necessary. To have the maximum wonderful effect on adolescent health, government agencies, community groups, schools, and different community contributors must work together in a comprehensive approach. Offering safe and nurturing environments for the young people can help make certain that teenagers could be wholesome and efficient individuals of society (U.S Department of Health and Human Service, 2015).Lifestyle of adolescents depends on many factors. It is allied with the constant development which is taking place and the end result is different from the lifestyle of young people in the past. Every young man should lead a healthy lifestyle despite of age or interests. Young people should be aware of positive influence of healthy lifestyle on health and mood (Drzewicka & Wojciechowska).

CONCLUSION

In this study hypothesis was based on the biopsychosocial model and the hypothesis was proved thus stating that perceived social support and self – efficacy and adolescents lifestyle was correlated. It was also found that the family and friends had more influence on the adolescent's lifestyle than the significant others. Hypothesis 2 and 3 which measured the difference between the lifestyle patterns in adolescent's in terms place of residence and also in terms of gender

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difference. From the results obtained it can be concluded that males were maintaining healthy lifestyle than the females which contradicts the common belief that males will be more conscious of their lifestyle than males.

IMPLICATION

According to the Centres for Disease Control and Prevention (CDC, 2011), adolescents may need assistance to help them embrace positive health behaviours that can be carried into adulthood (Gage, 2014). Health professionals can also develop and implement programs aimed at increasing the health value of adolescents. School and college administrators must help adolescents in the adoption and maintenance of health-promoting lifestyles. Social support from family and friends and self – efficacy are important in the adoption of healthy lifestyle as demonstrated from our study. So it's important to focus on helping the adolescents to improve on these variables through various programs or activities which will help them to have a healthy lifestyle which will keep them away from serious illness and achieve a secure future.

LIMITATIONS

Factors like ethnicity, culture etc are not considered in this study thus limiting the heterogeneity of the study. Since the sample is not selected randomly the representativeness of the sample was not achieved. The study was conducted on the basis of General Self - Efficacy Scale. If the study was conducted on the basis of Health Self – Efficacy the correlation between the adolescent's lifestyle and self – efficacy would have been strong. The sample size of the study is small.

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Conflict of Interests

The author declared no conflict of interests.

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Protocols of Alcohol Dependents on Rorschach

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ABSTRACT

This study is to bring some of the patterns of Alcohol Dependents on Rorschach test. In this study random sampling technique was used through which a sample of 20 Alcohol Dependents and 20 Non dependents were included with the mean age of 33.60 years and 30.70 years. All participants were administered Rorschach Ink Blot test to see the different patterns between the groups. The result of the study reflects that there exists a significant difference between groups in the area of total responses, contents categories, space responses (S), ordinary (O) responses, synthesized responses (V/+), vague responses (V), form (F) responses, Popular (P) responses, Raw sum6 and Wgtd sum6. It was found that Non dependents produce more in: total responses, contents categories, space responses, ordinary responses, form responses and popular responses. Whereas alcohol dependents reflect more response in the areas of: vague responses, synthesized responses, unusual responses, Rawsum6 and Wgtdsum6.

Keywords: *Alcohol dependents, Non-Alcohol Dependents, Rorschach, Protocol.*

Rorschach is an Inkblot Personality Assessment Tests which Clinical Psychologist used as one of the most important test in their clinical practice. Even in India the Rorschach test is widely used and enjoys the highest rank among the tests used for psycho diagnosis and assessment of personality (Dubey, 1982). The clinical use of a psychological test like the Rorschach requires the existence of norms for normal individuals and also patients with various psychiatric disorders. Comparatively there are a few studies on children and adolescent using the Rorschach test in India. Moreover, within the researches conducted in India, the norms for normal subjects and patients with various psychiatric disorders established by various workers differ

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considerably (Bagh, 1955; Roy Chaudhuri & Maitra, 1965; Sethi et al, 1976; Dubey, 1982, Singh & Verma, 1990). Clinical Psychology in India has a relatively short history. As an applied field of psychology, it is not very old. For a short while, the training of clinical psychology was started in 1951 at Banaras Hindu University, but it really got started with DM and SP now M. Phil in Clinical Psychology at Bangalore in 1956 (Verma, 1996). Central Institute of Psychiatry started training for clinical psychologists in 1962 (Nizamie and Goyal, 2010). At present 16 (IACP record) to 20 institutions and universities started running this course. These institutions provide training in Rorschach as per India is concerned. Prior to the 1970s, there were five primary scoring systems for how people responded to the inkblots. They were dominated by two — the Beck and the Klopfer systems. Three other that were used less often were the Hertz, Piotrowski and the Rapaport-Schafer systems. In 1969, John E. Exner, Jr. published the first comparison of these five systems entitled *The Rorschach Systems* (Femingham, 2015). In almost all of the systems do not try to find out the pattern of alcohol dependents on Rorschach. In this study an attempt is made to get some ideas regarding what kind of patterns might occur in alcohol dependents group by analysing the responses (protocols) of them in Rorschach test so that the findings could help in the field of clinical practice of psychology.

METHODOLOGY

Objectives:

1. To study the Protocols of Alcohol Dependents on Rorschach Test.
2. To compare the protocols of Alcohol Dependents with the protocols of Non Dependents.

Sample Details:

The sample consists of 20 Alcohol Dependents and 20 Non Dependents of the mean age groups of 33.60 and 30.70 respectively.

Alcohol Dependents

Inclusion Criteria:

1. Male who fulfill the criteria of Alcohol dependents according to ICD-10.
2. Those who can give their consent for study.

Exclusion Criteria:

1. Social Drinker.
2. Co morbid Psychiatric illness at diagnostic Level according to ICD-10.

Non Alcohol Dependents

Inclusion Criteria:

1. Male who do not fulfill the criteria of Alcohol Dependents according to ICD-10.
2. Those who can give their consent for study.

Exclusion Criteria:

1. Co morbid Psychiatric illness at diagnostic Level according to ICD-10.

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Tools Used:

Rorschach test (Exner, 2005):

The Rorschach Inkblot Test is a projective psychological test consisting of 10 inkblots printed on cards (five in black and white, five in color) created in 1921 with the publication of Psychodiagnostik by Hermann Rorschach. During the 1940s and 1950s, the test was synonymous with clinical psychology. Throughout much of the 20th century, the Rorschach inkblot test was a commonly used and interpreted psychological test. In surveys in 1947 (Louttit and Browne) and 1961 (Sundberg), for instance, it was the fourth and first, respectively, most frequently used psychological test. Prior to the 1970s, there were five primary scoring systems for how people responded to the inkblots. They were dominated by two — the Beck and the Klopfer systems. Three other that were used less often were the Hertz, Piotrowski and the Rapaport-Schafer systems. In 1969, Exner, Jr. published the first comparison of these five systems entitled *The Rorschach Systems*. Dr. Exner developed the Comprehensive System as a scientifically valid, clinically useful, and reliable method of using the Rorschach Inkblot Test. He did this by working with a number of Rorschach experts (Klopfer, Beck, Hertz, etc.) and realized that no one system could be defended. While there was some research supportive of different aspects of each of the systems, none of them had a broad based research foundation. To help the Rorschach gain acceptance and utility, he developed a research plan to test various aspects of the test. In addition, he developed reliable and valid rules of administration.

Procedure

A sample of 20 Alcohol Dependents and 20 Non Dependents were selected from Government Medical College and Hospital, Chandigarh who fulfilled inclusion criteria. They were given consent forms and also explain the purpose of study properly. It was emphasized that participants in the study should be voluntary and they could withdraw any time if they are not willing to continue. Participants who fulfilled inclusion criteria were administered Rorschach to assess their pattern of responses on Rorschach test.

Statistical Analysis

Statistical analysis was done with the help of Statistical Package of Social Science (SPSS-20.0). Mean and Standard Deviation were calculated followed by t- test to compare between two groups namely- Alcohol Dependents and Non Dependents.

RESULTS

Table-1 shows, the mean and SD of Alcohol dependents and Non Dependents. The result found that the mean age of alcohol dependents was 33.60 (± 8.431) and the mean of Non Dependents was 30.70 (± 7.34) which showed the mean age of both the groups did not have much variation. Table-2 shows, comparison of Alcohol Dependents and non dependents with regards to response. The result found t-value was 2.587 which was statistically significant ($P < 0.01$) which means the total number of responses were significantly higher at non dependents groups than Alcohol

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dependents groups. Table-3 shows, comparison of Alcohol Dependents and non dependents with regards to contents. The result found t-value of 1.993 which was statistically significant ($P < 0.05$) which proclaim that Non dependents group were significantly higher in content categories than alcohol dependents group. Table-4 shows, comparison of Alcohol Dependents and non dependents with respect to location and Developmental Quality (DQ). The result found t-values of 2.260 in the domain of Space(S) which was statistically significant ($P < 0.01$). This reflects non dependents were significantly higher in S response than alcohol dependents. In respect to DQ, t-values were; 3.028, 2.185 and 1.972 under the domains of Ordinary (O), Synthesized (V/+) and Vague (V) which were statistically significant. These provides the impression that Non dependents were significantly produce higher 'O' responses where as Alcohol dependents group produce significantly more responses at the domain of V/+ and V. Table-5 shows, comparison of Alcohol Dependents and non dependents with regards to Form Quality (FQ). The result found t-value of 5.039 and 2.129 in the domain of ordinary (O) and Unusual (U) which was statistically significantly ($P < 0.01$ and $P < 0.05$). This provides the cognition that Non dependents group significantly produce more 'O' responses and Alcohol dependents group provide more 'U' responses. Likewise, the result repeats when we have an eye at the area of W+D. Table -6 shows, comparison of Alcohol Dependents and Non dependents with respect to form (F). The result found t-value of 4.358 which was statistically significant ($P < 0.01$). This finding interprets that Non-dependents group produce significance higher F responses than Alcohol dependence group. Table -7 shows, comparison of Alcohol Dependents and non dependents with respect to Popular response (P), Lambda (L), Affect ratio (Afr), Raw Sum6 and Wgtd Sum6. The result found Non dependents group were significantly responded more P ($t=6.883$, $P < 0.01$), where as Alcohol dependents responded more Rawsum6 ($t= 4.502$, $P < 0.01$) and wgtdsum6 ($t= 6.538$, $P < 0.01$).

DISCUSSIONS

The present study attempts to get some ideas regarding patterns of Alcohol dependents group by analyzing the responses (protocols) of them in Rorschach test so that the findings could help in the field of clinical practice of psychology. The result found, the total number of responses, content categories, space response and ordinary response were significantly higher at non dependents groups than Alcohol dependents groups. This may be because alcohol dependents are poor in creative thinking. They can't sift their ideas from one to another quickly. They have cognitive impairment and frontal lobe dysfunction. This is supported by the study of Bernardin et al (2014) who found that Chronic excessive alcohol consumption induces cognitive impairments mainly affecting executive functions, episodic memory and visuospatial capacities related to multiple brain lesions. These cognitive impairments not only determine everyday management of these patients, but also impact on the efficacy of management and may compromise the abstinence prognosis. Moselhy, Georgiou, and Kahn (2001) did Neurophysiological studies with positron emission tomography and single photon emission computed tomography in alcohol dependents. The result found decrease frontal lobe glucose utilization and reduced cerebral blood flow. There is also evidence from neuropsychological studies that there are specific deficits in

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alcohol dependents that suggest frontal lobe dysfunction which plays the role of thinking and decision making.

The results found Non dependents group are significantly responded more F and Popular (P) responses where as alcohol dependents responded more V/+, V, U, Raw sum6 and wgtsum6 responses. This may be because alcohol dependents are unable to think logically, optimally and also unable to produce more clear executive functional concepts. They also have poor visuospatial cognition. Supportively, Brevers et al. (2014) found that alcohol dependent individuals are impaired in their ability to decide optimally in multiple facets of uncertainty and that at least some aspects of these deficits are linked to poor working memory processes. In another study of Berman et al (2014) found that alcohol dependents have decrease memory, executive functions, emotion and psychosocial skills, visuospatial cognition and psychomotor abilities are particularly affected. In accordance with this pattern of deficits, the brain networks that underlie the most impaired functions involve the frontocerebellar system and mesocortico limbic circuitry.

CONCLUSION

1. Alcohol dependents produce significantly less response compares to non dependents groups.
2. Alcohol Dependents responded significantly less content categories than Non Alcohol dependents.
3. Alcohol Dependents responds Significantly less 'S' responses and 'O' responses.
4. Alcohol dependents group produce significantly more responses at the domain of V/+ and V.
5. Alcohol dependents group significantly produce more 'U' responses.
6. Alcohol dependents produce significantly less F (o,u) responses.
7. Alcohol Dependents produce significantly less popular response (P).
8. Alcohol dependents significantly responded more Rawsum6 and wgtsum6.

LIMITATIONS AND FUTURE DIRECTIONS

1. Sample size required to increase.
2. The mean age of both groups must be similar.
3. The differences in the pattern of response in comparison with other Psychiatric illness required to rule out.

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Conflict of Interests

The author declared no conflict of interests.

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Table-1: Shows the mean age and SD of alcohol dependents.

Age	Groups	N	Mean	Std. Deviation
	Alcohol Dependents	20	33.6000	8.43177
	Non Dependents	20	30.7000	7.34202

Table-2: Comparison of Alcohol Dependents and non dependents with regards to response.

	Groups	N	Mean	Std. Deviation	t- Value
T. Response	Alcohol Dependents	20	21.9000	6.54458	2.587**
	Non Dependents	20	28.8000	9.97154	

** Significant at 0.01 level, *Significant at 0.05 level

Table-3: Comparison of Alcohol Dependents and non dependents with regards to contents.

	Groups	N	Mean	SD	t-Value
Contents	Alcohol Dependents	20	6.7500	2.35919	1.993*
	Non Dependents	20	8.3000	2.55672	

** Significant at 0.01 level, *Significant at 0.05 level

Table-4: Comparison of Alcohol Dependents and non dependents with respect to location and Developmental Quality (DQ)

		Groups	N	Mean	Std. Deviation	t- Value
Locations	W	Alcohol Dependents	20	5.2000	3.25415	1.608
		Non Dependents	20	6.7500	2.82610	
	D	Alcohol Dependents	20	13.9500	5.80812	1.604
		Non Alcohol Dependents	20	17.5500	8.18519	
	Dd	Alcohol Dependents	20	1.8000	1.73509	1.407
		Non Alcohol Dependents	20	2.7000	2.27342	

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		Groups	N	Mean	Std. Deviation	t- Value
DQ	S	Alcohol Dependents	20	1.3000	1.34164	2.260*
		Non Dependents	20	2.3000	1.45458	
	+	Alcohol Dependents	20	3.2500	2.31414	0.959
		Non Dependents	20	4.5500	5.60521	
	O	Alcohol Dependents	20	15.7000	5.89469	3.028**
		Non Dependents	20	22.8500	8.76161	
	V/+	Alcohol Dependents	20	.4000	.68056	2.185*
		Non Alcohol Dependents	20	.0500	.22361	
	V	Alcohol Dependents	20	2.5500	2.70429	1.972*
		Non Dependents	20	1.1500	1.66307	

** Significant at 0.01 level, *Significant at 0.05 level

Table-5: Comparison of Alcohol Dependents and non dependents with regards to Form Quality (FQ).

FQ	Groups		N	Mean	Std. Deviation	t-Value
FQ _x	+	Alcohol Dependents	20	.0000	.00000	0.000
		Non Alcohol Dependents	20	.0000	.00000	
	O	Alcohol Dependents	20	7.2000	5.09489	5.039**
		Non Alcohol Dependents	20	16.5500	6.54921	
	U	Alcohol Dependents	20	4.9500	3.95335	2.129*
		Non Alcohol Dependents	20	2.9000	1.71372	
	–	Alcohol Dependents	20	7.4500	3.33206	0.780
		Non Alcohol Dependents	20	8.4000	4.30911	
	None	Alcohol Dependents	20	.5500	1.70062	0.325
		Non Alcohol Dependents	20	.7000	1.17429	

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FQ	Groups		N	Mean	Std. Deviation	t-Value
MQual	+	Alcohol Dependents	20	.0000	.00000	1.000
		Non Alcohol Dependents	20	.0500	.22361	
	O	Alcohol Dependents	20	.4500	.60481	1.718
		Non Alcohol Dependents	20	1.0000	1.29777	
	U	Alcohol Dependents	20	.3500	.81273	1.592
		Non Alcohol Dependents	20	.0500	.22361	
	–	Alcohol Dependents	20	.7500	2.26820	1.479
		Non Alcohol Dependents	20	.0000	.00000	
	None	Alcohol Dependents	20	.2000	.61559	1.453
		Non Alcohol Dependents	20	.0000	.00000	
W+D	+	Alcohol Dependents	20	.0000	.00000	1.000
		Non Alcohol Dependents	20	.0500	.22361	
	O	Alcohol Dependents	20	7.2000	6.11814	4.038**
		Non Alcohol Dependents	20	14.6000	5.45218	
	U	Alcohol Dependents	20	4.9000	3.59678	2.916**
		Non Alcohol Dependents	20	2.3000	1.71985	
	–	Alcohol Dependents	20	6.1500	2.71981	0.250
		Non Alcohol Dependents	20	6.4000	3.54520	
	None	Alcohol Dependents	20	.5500	1.70062	0.880
		Non Alcohol Dependents	20	.2000	.52315	

** Significant at 0.01 level, *Significant at 0.05 level

Table 6: Comparison of Alcohol dependents and Non dependents with respect to form (F).

Determinants	Groups	N	Mean	Std. Deviation	t-Value
F (o,u)	Alcohol Dependents	20	10.2500	8.05818	4.358**
	Non Dependents	20	23.3000	10.69727	

** Significant at 0.01 level, *Significant at 0.05 level

Protocols of Alcohol Dependents on Rorschach

Table -7: Comparison of Alcohol Dependents and non dependents with respect to Popular response (P), Lambda (L), Affect ratio (Afr), Raw Sum6 and Wgtd Sum6.

	Groups	N	Mean	Std. Deviation	t-Value
P	Alcohol Dependents	20	2.0500	1.46808	6.883**
	Non Dependents	20	6.2000	2.26181	
L	Alcohol Dependents	20	5.7965	5.30400	0.481
	Non Dependents	20	6.5705	4.85276	
Afr	Alcohol Dependents	20	.5480	.18341	0.139
	Non Dependents	20	.5405	.15719	
Rawsum6	Alcohol Dependents	20	2.4000	1.27321	4.502**
	Non Dependents	20	.8000	.95145	
Wgtdsum6	Alcohol Dependents	20	22.2500	12.85087	6.538**
	Non Dependents	20	2.8000	3.44277	

** Significant at 0.01 level, *Significant at 0.05 level

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Gender Difference on Anxiety, Adjustment, Emotional Intelligence, Study Habit and Attitude among Adolescents

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ABSTRACT

The major purpose of this study is to find out anxiety, adjustment, emotional intelligence, study habits and attitude difference between adolescent boys and girls (14-16years). For this purpose data was collected from 60 high school students; 30 boys and 30 girls. The tools used were State and Trait Anxiety Test (STAT), Academic Anxiety Scale, Global Adjustment Scale, Emotional Intelligence Scale, and Test of Study Habits and Attitudes (TSHA). The results indicate that there is no significant mean difference in general anxiety and academic anxiety between boys and girls. However there are significant gender difference in certain dimensions of Emotional Intelligence like empathy, self-motivation, self-development, Study Habits, attitude, and certain dimensions of adjustment.

Keywords: *Gender Difference, Anxiety, Adjustment, Emotional Intelligence, Study habits, Attitude, Adolescence*

Anxiety is a prevalent psychological issue among adolescents. It is the apprehension, tension or uneasiness related to expectation of danger whether internal or external. It may be focused on an object, situation or activity that is avoided or may be unfocused (Kendell, et.al, 1992). Many of the anxieties are fairly common and transitory. Their appearance is normal in development. Anxiety is associated with substantial negative effects on children's social, emotional and academic success (Essau, Conradt & Pertmann, 2000). Anxiety is often undiagnosed due to internalization of its symptoms. It has negative influence not only on academic success but also on emotional and social well being, which affect the coping skill as well as adjustments of self towards life, others and so on.

In Kerala, the emphasis of academic achievement is more irrespective of urban or rural differentiation. The presence of approximately 13000 schools across Kerala can be counted

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among the proof of high relevance on primary academics. The literacy rate of Kerala is also high.

There is excessive pressure among adolescents on academic performance and are expected to achieve greater than their individual capacity especially among the high school students. Among the high school classes, Class 9th and Class 10th have higher pressure as they would be preparing for their Secondary Examinations and its results are vital for higher studies. Entry to higher Secondary is the opening doors towards ones career.

Generally, girls seem to experience anxiety more than boys during adolescence. Adolescent girls report a greater number of worries, more separation anxiety, and higher levels of generalized anxiety (Campbell & Rapee, 1994). An alternative and possibly related explanation may revolve around socio cultural factors including those that allow girls to admit their fears (Ollendick, Matson and Helsel, 1985). Parents also report more fears in girls than boys because fearful behavior is seen more acceptable in girls (Harris & Ferrari, 1983). Anxiety has also been linked to parenting practices and features of parent- child relationships (Rapee, 1997).

Factor analyses have yielded further information on the organization of the content of anxiety due to development. The Five Factor structure include: (1). Fear of Failure and Criticism (2.) Fear of Unknown, (3) Fear of Injury and Small Animals, (4). Fear of Danger and Death, and (5) Medical Fears (Ollendick, Matson and Helsel, 1985). In addition to changes in the content of fears, quantitative changes also occur with development. Fear appears to peak between two and half years to four years of age and then start to decline. However older adolescents (16-18) still report an average of 11.6 fears (from a list of 80 potential fears) compared to an average of 14.2 fears in 7 to 9 year- olds (Ollendick, Matson and Helsel, 1985). This demonstrates that the decrease in fears is not as great as expected because earlier fears are replaced by new fears that are associated with particular developmental levels (Kendall and Ronan, 1990).

Anxiety also tends to hamper the emotional stability as well as the adjustment of individuals to his environment. Preliminary investigations have found that approximately 9% of children diagnosed with overanxious disorder (Last et al., 1987a) or school phobia (Last, Strauss and Francis, 1987) met DSM III criteria for concurrent behaviour disorder, it is possible that the fidgeting and distractibility of the over anxious child can be largely attributed to preoccupation with worries (Kendal, et al, 1992)

Anxiety can be classified into three sections in which academic anxiety is situation-specific form of anxiety related to academic circumstances (Tohill & Holyoak, 2000). Test anxiety, any particular subject's anxiety, and any type of institutional related anxiety, all are included to academic anxiety (Cassady, 2010). Academic (test) anxiety leads to academic difficulties

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through irrelevant thoughts, preoccupation and reduce attention and concentration (Eysenck, 2001). Academic achievement of young pupil is hampered by anxiety (Reilly and Lewis, 1991).

Adjustment is a behavioral process by which a person maintains a balance among various needs that encounters at a given point of time. It is also identified as an achievement too. When the relationship between individual and the environment is in norms, then it is said that adjustment is achieved. Adjustment refers to the adequacy of the personal and interpersonal processes that we use to adapt to our environment. It refers to a process wherein one builds variations in the behavior to achieve harmony with oneself, others or the environment with an aim to maintain the state of equilibrium between individual and the environment. A well adjusted person is someone who engages in behaviors that are appropriate for the culture and a given interpersonal situation. It is the course of behavior; an individual follows in demands of internal, external and social environment. The harmony and conflict within and among one's behavior, value-belief systems, affective reactions, etc works as major determinants of adjustment.

Emotional intelligence (EI) is the ability to carry out accurate reasoning focused on emotions and the ability to use emotions and emotional knowledge to enhance thought. It is the ability to perceive and express emotions, to reason about and use them, and to manage them to foster personal growth (Mayer, Roberts, & Barsade, 2008; Rivers et al., 2012). This construct is linked to higher social skills and fewer behavior problems in childhood (Mayer et al., 2008), and among older youth, is associated with lower substance use and better academic grades (Parker, et al, 2004). It predicts social relations, workplace performance, and mental and physical well-being.

Study habits are mainly external factors that facilitate the study process such as sound study routines that include how often a student engage in studying sessions, review the material, self-evaluate, rehearse, and studying in a conducive environment (Credé, 2008). Study habits and study attitudes are multi dimensional in nature. That is, effective studying requires not only that the students possess knowledge of appropriate studying techniques and practices (study skills), but also sustained and deliberate effort (study motivation), self-regulation, ability to concentrate, self-monitoring (study habits), and sense of responsibility for and value in one's own learning (study attitude).

Attitude has been long considered as a central concept in social psychology. Allport defined an attitude as "a mental and neural state of readiness, organized through experience, exerting a directive and dynamic influence upon the individual's response to all objects and situations with which it is related."

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Objective

- The objective of the present study is to understand the gender difference on anxiety, adjustment, emotional intelligence, study habits and attitude among adolescent students.

Hypothesis:

1. There is no gender difference in trait anxiety and state anxiety among adolescent students.
2. There is no gender difference in adjustment among adolescent students.
3. There is no gender difference in academic anxiety among adolescent students.
4. There is no gender difference in emotional intelligence among adolescent students.
5. There is no gender difference in study habits among adolescent students.
6. There is no gender difference in attitude among adolescent students.

METHOD:

Sample

The sample of the present study consists 60 high school students, 30 boys and 30 girls belongs to an age group of 14-16 years, studying in Government School, Manghai, Ernakulam District, Kerala.

Materials

The study tools used for attaining the objectives are:

1. State and Trait Anxiety Test (STAT) by Sanjay Vohra is based upon MAP series that measures 20 personality dimensions. Separate scores measuring Trait and State Anxiety may also be derived apart from total anxiety score. The test includes 40 anxiety items that measures five dimensions of anxiety. They are (1) Guilt Proneness (Gp): a person with high score on the dimension tends to be depressed, apprehensive, troubled, mood, a worrier, full of foreboding and brooding. He has a child like tendency to anxiety in difficulties and does not feel accepted and or free to participate in groups. Low score on dimension Gp tends to be self assured, confident, serene, and placid with unshakable nerve. He has a mature, un anxious confidence in himself and his capacity to deal with things. (2) Tension (Tn): the individual who scores high on Tn tends to be very tense, excitable, frustrated driven, restless, fretful and impatient. Often fatigued, the person is unable to remain inactive and it is often seen that high tension level disrupt school and work performance. The person who scores low on Tn tends to be sedate, relaxed, tranquil, composed and satisfied. (3) Maturity (Ma): the person scoring high on this dimension is easily affected by feelings and tends to be low in frustration tolerance, changeable and plastic. He evades necessary reality demands and is neurotically fatigued. Easily annoyed and emotion may show symptoms like phobias, sleep disturbances, psychosomatic complaints etc. The person scoring low on Ma is emotionally stable faces reality and calm. He tends to be emotionally mature, stable and realistic about life and is able to maintain solid group morale. (4) Suspiciousness (Su): the person who scores high on SU tends to be suspicious, mistrusting,

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doubtful and hard to fool. He is often involved in his own ego and is self opinionated and is unconcerned about other people. Hence is a poor team member the person scoring low on dimension Su tends to be trusting, free of jealous tendencies, adaptable, cheerful, and concerned about other people and is a good team worker. Self Control (Sc): the person scoring high on dimension Sc will not be bothered with will control and regard for social demands. He is careless of protocol and follows own urges. Not overly considerate, careful or painstaking and can be maladjusted. The person scoring low on dimension Sc tends to have strong control of his emotions and general behaviour. He is inclined to be socially aware and careful and gives evidence of what is commonly termed “self- respect” and regard for social reputation.

2. Academic Anxiety Scale developed by A. K Singh & Dr. A. Sen Gupta has been developed for use with the school students of class VII, IX and X (age range: 13-16 years). The percentile scores have been prepared for both Rural and Urban students and qualitatively interprets anxiety as High, Average and Low Academic Anxiety. The scale is a satisfactory tool for assessing academic anxiety among children and it can be applied for further research and investigation.

3. Emotional Intelligence Scale by Anukool Hyde, Sanjyot Pethe, Upinder Dhar assess ten factors like (1) Self awareness which is being aware of oneself. (2) Empathy which is the feeling and understanding of other person (3). Self motivation is being motivated internally (4). Emotional Stability (5) Managing Relations (6) Integrity (7) Self Development 8) Value Orientation (9) Commitment (10) Altruistic behaviour. The raw score is interpreted as High, Normal and Low as per the distinctions of scores given in the manual.

4. Global Adjustment Scale-Student form (GAS-S) developed by Sanjay Vohra for assessing students between age ranges 13 to 19 years. The student form tries to obtain reliable data from the student concerning what he thinks and feels about his Family relationship, health, his social environment, emotions, school and sex related behaviour. The dimensions that are assessed by the test are: (1) emotional adjustment (Em): high scores on Em suggests the student is highly sensitive and has concerns in areas like the tendency to day dream and imagine things, lively and unstable feelings of fear, anger and excitement, feelings of depression coming from isolation and inferiority, guilt and self- consciousness, easily hurt feeling and frequent episodes of worry, anxiety and nervousness. (2). Family Adjustment (Fm): High scores on Fm tends to associate with conflicts resulting due to the inability to live up to the expectations of one or both parents/ siblings, feelings of parental/ sibling rejection, persistent tensions in the family, arbitrary restrictions and no- affectionate disciplining, sibling rivalries, inability to identify with or relate to one or both parents, divorce or separation in the family, possessive parents, lack of freedom for expression. (3) Health Adjustment (He): Extremely high scores on He reflects a history of poor health difficulties or an excessive pre occupation with his body mentally, or both. Many common health problems faced by students are frequent cold and throat problems, diseases, operation or accidents with residual effects, fatigue, sleeplessness, weight problems, and history of absence from school due to illness etc. There is high inter correlation between He and Em, which suggest that there may be tendency for students with the health problems to experience

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tensions in their social and emotional relationships with others. (4). School Adjustment (Sc): During schooling phase, students learn about the stresses and hazards in school. Some of the common stressors are: sudden demands for new kind of performance, rapid obsolescence of knowledge and skills, increased demands for specialty, likelihood of transfer. (5). Sexual Adjustment (Se): covers major areas like interest in sexual relationships, sexual anxiety, and guilt associated sexual activity, permissiveness or openness to sexual activities. (6) Social adjustment (So): high scorers show attitudes and behaviours to other people where they have a feel that people in general are stupid, dull, bore some and irrational, they believe that one cannot afford to trust people even friends, they feel that people are unfriendly and that they don't understand the individual. They also do not hesitate to criticize people openly and they believe that altruism is basically selfish and that good deeds are useless.

5. Test of Study Habits and Attitudes (TSHA) by Dr. C. P. Mathur is based on nine areas of study techniques, habits and attitudes viz., Attitude towards teachers; home environment; Attitude towards education; Study Habits; Mental Conflict; Concentration; Home Assignment; Self Confidence; Examination.

RESULT AND DISCUSSION

The present study intends to find out the gender difference on Anxiety, Adjustment, Emotional Intelligence, Study Habit and Attitude.

In order to find out gender difference 't' test has been conducted and the results are given below.

Table 1: Comparison between Boys and Girls on Academic Anxiety

Variable	gender	N	Mean	Std. Deviation	t-value
Academic Anxiety	Male	30	10.57	2.555	0.901
	Female	30	11.27	3.403	

From the above table it can be inferred that the 't' value is 0.90; which is not statistically significant i.e. there is no gender difference on Academic Anxiety among the adolescent students. This may be because of gender equality existing in the academic area. All the students might be experiencing more or less same level of academic anxiety due to the equality in demands on academics irrespective of gender.

Table 2: Comparison between Boys and Girls on State and Trait Anxiety

State and Trait Anxiety		gender	N	Mean	Std. Deviation	t-value
Guilt Prone(Gp)	Trait	Male	30	5.20	2.511	0.06
		Female	30	5.17	1.683	
	State	Male	30	4.80	2.074	1.59
		Female	30	4.03	1.629	

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State and Trait Anxiety		gender	N	Mean	Std. Deviation	t-value
	Total	Male	30	10.00	3.648	0.91
		Female	30	9.27	2.477	
Maturity (Ma)	Trait	Male	30	2.80	1.627	1.08
		Female	30	3.23	1.478	
	State	Male	30	2.83	1.663	0.49
		Female	30	3.07	1.946	
	Total	Male	30	5.63	2.526	0.84
		Female	30	6.20	2.670	
Self Control (Sc)	Trait	Male	30	2.93	2.016	0.133
		Female	30	3.00	1.857	
	State	Male	30	2.90	1.954	3.393
		Female	30	3.07	1.258	
	Total	Male	30	5.83	2.984	0.045
		Female	30	5.87	2.738	
Suspiciousness (Su)	Trait	Male	30	2.53	1.592	0.664
		Female	30	2.87	2.240	
	State	Male	30	2.70	2.054	0.464
		Female	30	2.93	1.837	
	Total	Male	30	5.23	2.956	0.484
		Female	30	5.60	2.908	
Tension (Tn)	Trait	Male	30	3.37	1.671	0.397
		Female	30	3.53	1.737	
	State	Male	30	3.70	1.664	0.312
		Female	30	3.83	1.642	
	Total	Male	30	7.07	2.753	0.405
		Female	30	7.37	2.977	
TOTAL TRAIT		Male	30	11.63	3.700	0.997
		Female	30	12.63	4.064	
TOTAL STATE		Male	30	12.13	4.249	0.760
		Female	30	12.90	3.478	
TOTAL SCORE		Male	30	23.77	6.350	1.134
		Female	30	25.53	5.704	

It can be inferred from table 2 that the 't' value of anxiety is not statistically significant with relation to the gender. This can be due to the social condition in Kerala where both males and females are considered equally competitive and equal chances for attaining education and favorable social acceptance with respect to opportunities for growth.

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The research conducted earlier by Abha Subba Rao (2016) on Academic Stress and Adolescent Distress among the adolescents in Chennai about adolescent anxiety. In one study equal number of male and female college fresh men in city of Bhuvaneshwar found that the male students scored higher on scale of manifest anxiety than female students (Singh & Singh, 1989). Another study measures manifest anxiety in a sample of Class XI and Class XII in Karnataka and consistent with anxiety literature, female students scored higher than, males (Zareena, Khan, Phadnis, 1988).

The study conducted by A. K.Choudhary and Deepika Jain on anxiety among male and female adolescents shows higher range of anxiety among male adolescents than female adolescents. The authors stress the competition and confusion in taking up decision increasing the anxiety level in male adolescents.

Table 3: Comparison of gender difference on Emotional Intelligence

Emotional Intelligence	Gender	N	Mean	Std. Deviation	t-value
Self Awareness	Male	30	16.77	2.012	0.790
	Female	30	16.03	4.657	
Empathy	Male	30	19.10	2.881	2.672**
	Female	30	16.30	4.963	
Self- Motivation	Male	30	23.40	3.645	4.31**
	Female	30	18.20	5.530	
Emotional Stability	Male	30	14.87	3.048	0.000
	Female	30	14.87	2.474	
Managing Relations	Male	30	14.37	2.566	0.393
	Female	30	14.70	3.870	
Integrity	Male	30	10.83	3.075	0.272
	Female	30	11.07	3.552	
Self Development	Male	30	8.10	1.863	2.146*
	Female	30	9.50	3.048	
Value Orientation	Male	30	7.73	1.507	0.157
	Female	30	7.67	1.768	
Commitment	Male	30	7.93	1.388	0.343
	Female	30	8.07	1.617	
Altruistic Behavior	Male	30	7.10	1.423	0.62
	Female	30	7.33	1.493	
Total Emotional Intelligence	Male	30	130.07	11.298	1.708
	Female	30	123.60	17.391	

There is no significant difference in dimensions like self- awareness, emotional stability, managing relations, integrity, value orientation, commitment, altruistic behavior among

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adolescent boys and girls. This can be attributed to equal chances and gender equality that exist in the educational system of Kerala. Moreover the chances for interaction contributes to the dimensions like self- awareness, emotional stability, managing relations, integrity, value orientation, commitment, and altruistic behavior. However, the mean value of empathy indicates significance at 0.01 level or mean difference is highly significant (t-value 2.672). The mean score indicates that male students have high level of empathy compared to female counterparts. The dimension of self- motivation also exhibits significance at 0.01 level (t-value 4.321). The mean difference is highly significant. The dimension of self- development indicates significance at .05 level (t- value 2.146). This indicates that boys have better self- development than the girls. Significant mean difference in self development (t- value 2.146) also indicates that gender difference exist in this dimension of emotional intelligence, with a significantly better score among girls. This may be due to the hardworking nature of girls comparatively.

The studies conducted on Gender Differences in Emotional Intelligence among Adolescents of Chandigarh by Katyal and E. Aswathi (2005) shows girls having higher emotional intelligence than boys of same age. However the same study says that higher emotional intelligence for boys is a better predictor for achievement. Better empathy and self motivation and interest for self- development may be due to the peer influence and better opportunity for socialization outside home for boys than girls. Boys get chances to have more communication with males of other age group (secondary groups) that would enhance better self- motivation and empathy.

Table 4: Comparison of gender difference on Study Habit and Attitude

Variable	gender	N	Mean	Std. Deviation	t-value
Study habit& Attitude	Male	30	28.53	8.068	2.396*
	Female	30	34.03	9.640	

The scores indicate there is significant mean difference between the group scores at 0.05 level (t-value 2.396). Girls have better attitude towards studies and habits than boys. A high score of girls on this test indicates high order of good study habits and proper attitudes comparatively with boys.

Table 5: Comparison of gender difference on Adjustment

Global Adjustment Scale	gender	N	Mean	Std. Deviation	t-value
Emotional Adjustment (Em)	Male	30	18.57	4.869	0.456
	Female	30	19.23	6.361	
Family adjustment(Fm)	Male	30	10.53	4.547	2.248*
	Female	30	13.03	4.056	

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Global Adjustment Scale	gender	N	Mean	Std. Deviation	t-value
Health Adjustment (Hm)	Male	30	14.40	5.143	0.717
	Female	30	13.50	4.562	
School Adjustment (Sc)	Male	30	11.50	3.589	1.394
	Female	30	12.83	3.815	
Sexual Adjustment (Se)	Male	30	15.27	4.578	1.17
	Female	30	13.83	4.871	
Social Adjustment (So)	Male	30	24.83	4.202	2.27*
	Female	30	22.00	5.388	

The adjustment score indicates that there is no significant difference in dimensions like emotional adjustment, health adjustment, school adjustment, sexual adjustment between boys and girls. However there is 0.05 level significance in family adjustment (t-value 2.248) and in social adjustment (t-value 2.27). It is interesting to note that high level of family adjustment can be seen among girls and high level of social adjustment among boys.

The result of research by Vishal and Kaji (2014) on adjustment of adolescent boys and girls in Ahmadabad related to the present result that there is significant difference in home, social and emotional adjustment. But there is not much difference in school adjustment between boys and girls.

CONCLUSION

The major findings of the study as follows:

1. There is no significant gender difference in academic anxiety.
2. There is no significant gender difference in state and trait anxiety and its dimensions.
3. There is significant gender difference in the sub dimensions of emotional intelligence like, empathy, self-motivation and self-development and no significant gender difference between self awareness, emotional stability, managing relations, integrity, value orientation, commitment, altruistic behaviour.
4. There is significant gender difference in study habits and attitude between boys and girls.
5. There is significant gender difference in dimensions of adjustment like family adjustment and social adjustment and no significant gender difference in emotional adjustment, Health adjustment, school adjustment, and sexual adjustment.

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Conflict of Interests

The author declared no conflict of interests.

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Learning to Learn

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ABSTRACT

Success in the knowledge society depends on the ability to learn. In the context of the knowledge economy, the competence of learning to learn is a basic skill and a quintessential tool for lifelong learning and thus education and training needs to provide the learning environment for the development of this competence for all citizens including persons with fewer opportunities (those with special needs, school dropouts and adult learners) and through different learning environments (formal, non-formal and informal). The EUROPEAN UNION working group on “Key competencies” identified ‘Learning to learn’ as the ability to pursue and persist in learning. They argued that: *“Individuals should be able to organise their own learning, including through effective management of time and information, both individually and in groups. Competence includes awareness of one’s learning process and needs, identifying available opportunities, and the ability to handle obstacles in order to learn successfully. It means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts – at home, at work, in education and training”*. For all the reasons given above, and for many others, the focus of education is shifting from “teaching” to “learning” today. Teacher’s roles are changing from lecturing to “designers of learning methods and environments” (Barr and Tagg 1995, cited in Fink 2003). This paper discusses various steps, challenges, tools & strategies and barriers in learning to learn.

Keywords: *Learning, Competencies, Dropout*

Education is effective when it succeeds in promoting the personal growth and development of individuals. The concept of learning-to-learn has been adopted in response to the new challenges and demands due to the educational reforms around the world. Learning-to-learn provides an easy to execute and cost-effective measure for the assessment of factors that have been found relevant for lifelong learning, in the transfer of learning and in the practical constitution of new knowledge. Learning to learn has been defined in several different contexts. The European Commission suggested a single definition of learning to learn (European Commission, 2005):

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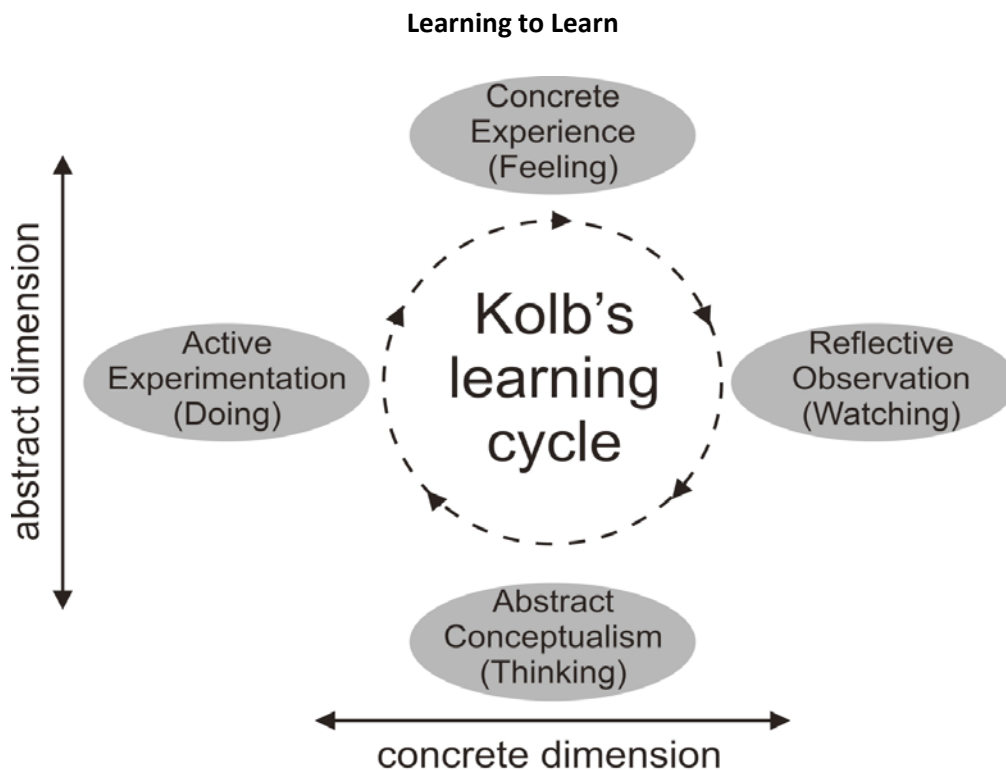
Learning to Learn

“Learning to learn’ is the ability to pursue and persist in learning. Individuals should be able to organise their own learning, including through effective management of time and information, both individually and in groups. Competence includes awareness of one’s learning process and needs, identifying available opportunities, and the ability to handle obstacles in order to learn successfully. It means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts – at home, at work, in education and training. Motivation and confidence are crucial to an individual’s competence.”

To prepare students for “emerging challenges in the workplace, in a diverse democracy, and in an interconnected world” institutions should place new emphasis on educating students to be “intentional learners” who are purposeful and self-directed, empowered through intellectual and practical skills, informed by knowledge and ways of knowing, and responsible for personal actions and civic values (AACU, 2002). They “take the initiative to diagnose their learning needs, formulate learning goals, identify resources for learning, select an implement learning strategies, and evaluate learning outcomes” (Savin-Baden and Major 2004). Specifically, the AACU report recommends that students should learn to:

- effectively communicate orally, visually, in writing, and in a second language
- understand and employ quantitative and qualitative analysis to solve problems
- interpret and evaluate information from a variety of sources
- understand and work within complex systems and with diverse groups
- demonstrate intellectual agility and the ability to manage change
- transform information into knowledge and knowledge into judgment and action

According to Kolb (1984), the learning cycle begins when the learner interacts with the environment (*concrete experience*). Sensory information from this experience is integrated and compared with existing knowledge (*reflective observation*). New models, ideas, and plans for action are created from this information (*abstract hypotheses*), and finally new action is taken (*active testing*). The Kolb cycle is consistent with the earlier work of Piaget and others who pointed out that learning have both a concrete (active) and an abstract (intellectual) dimension. Within the brain, knowledge is organized and structured in networks of related concepts. Accordingly, new knowledge must connect to, or build upon a framework of existing knowledge (Zull 2002). Put simply, learning involves building mental models (schema) consisting of new and existing information. The richer the links between new and existing information, the deeper the knowledge and the more readily it can be retrieved and applied in new situations.



CHALLENGES OF LEARNING TO LEARN

Learning approaches based on the transmission of known solutions or explicit means of finding solutions from teachers to students cannot prepare students to address complex problems in complex systems. The unique needs of independent learning cause it to be difficult to develop competence due to several factors:

- Because learning to learn is a process it is more abstract than learning known specific facts and procedures. This requires students to generalize and apply perspectives with multiple levels of aggregation.
- Learning to learn can require a change in the student's mental model of learning from a more structured and rigid knowledge base or set of steps to be applied once to a more flexible iterative process (Doyle and Ford, 1998).
- Verifying that independent learning has occurred is difficult because the proper use a flexible set of procedures is less recognizable than many other learning indicators.
- Learning to learn is heavily dependent supporting on conditions which are difficult to provide, assess and facilitate such as safe learning spaces for experimentation.
- Learning to learn often includes questioning and adjusting objectives and measures of those objectives.

Despite these difficulties the challenges of independent learning are not obvious. In fact many complex systems appear deceptively easy to manage (Serman, 1992). Convincing students of their need for effective independent learning skills is a first step in learning to learn. Therefore

effectively demonstrating the challenges inherent in designing and managing complex systems and the need for independent learning skills is critical.

STEPS IN LEARNING TO LEARN

Effective study skills and strategies are the basis of effective learning. They give you an opportunity to approach learning tasks systematically and independently. By always using good study habits –learning to work smarter – you will work like and become a successful student. There isn't one study/learning skill or strategy that works for every person in every situation. Therefore, learning to learn strategies are about learning what you know, learning what you don't know, and learning what to do about it. Learning strategies will:

- Enable you to take more responsibility for your own learning
- Allow you to spend your time effectively and stay on task
- Help you select the best approach(s) for each assignment/task
- Provide you with the knowledge and skills needed to begin, follow-through, and complete assignments/tasks
- Present you with access to a variety of content and reference materials
- Give you the confidence to know when and who to ask for help

1. Know Yourself

Begin by honestly assessing the strengths and weaknesses in basic college skills – reading, writing, listening, and mathematics – and study/work habits such as organization, time management, concentration, listening, and note taking. Next, identify the learning style preferences. Many factors affect learning, but consider whether the learning is most effective by reading, by watching, by listening, or by doing. You must also become familiar with your teachers' teaching styles to help you adapt your learning style to the best advantage. In addition, consider when (are you a morning person or a night owl) and where (do you concentrate best in a bright room with noise or in a cozy, quiet corner) you are at your best for learning.

2. Manage Your Time and Life

The first step in learning to manage the time – controlling your own life – is to identify what are the goals are and then establish the priorities to help you reach them. Analyze how you are using your time. If time is not spent on your priorities, you must make the necessary adjustments or you won't reach your goals. If school, learning and good grades are a priority, then you must make and follow a schedule that gives a significant amount of time to class and study.

3. Improve Your Concentration

As a good student, use your study time more effectively. Learn to keep your attention focused on the task at hand – concentrate. When you are in class or ready to study, give it your full attention. And remember, how well you learn something, not how fast you learn it, is critical factor in remembering. You must “get” something before you can “forget” it.

4. Know What Study Means & How to Do It

Learning takes more than just going to class and doing homework. It is really a four-part cycle:

Preview → class → review → study.

When you establish learning – cycle routine you will be able to learn more in less time with less stress.

5. Develop a Thinker's Vocabulary

Ability to understand the meaning of the words and to select the right one(s) to communicate the ideas, information, and feelings is very important to effective learning. To develop a thinker's vocabulary, one must become sensitive to words and develop strategies for unlocking the meaning of new words and a process for remembering the new words and their meanings.

6. Become an Active Reader

If you are actively involved, physically and mentally, you stay interested and committed. When you become passive, you rapidly lose interest and drift away. To learn from study/reading material, you must be an active, thinking participant in the process, not a passive bystander. Always preview the reading and make sure you have a specific purpose for each assignment. Read actively to fulfil your purpose and answer questions about the material. Keep involved by giving yourself frequent tests over what you've read.

7. Become an Active Writer

Writing accurately and expressing the ideas demands not only writing skill but focused attention, critical thinking and active involvement. Only if you become actively involved in the writing process you will be able to communicate your ideas clearly. Writing must have a purpose, a controlling idea or thesis, organized development of idea with major and minor supporting details, and a logical conclusion.

8. Build Listening & Note Taking Skills

Accurately listening to a lecture and deciding what is important are two skills that must be mastered before writing the information. Again, being an active rather than a passive participant is the key to your success. Taking good notes demands that prepare for class, become an active listener, distinguish major from minor points, use a note taking system, participate in class, and review often.

9. Know How to Study For & Take Exams

Preparing for exams will give a better understanding of the material, lower your anxiety, and improve your scores. Find out as much as you can about the exam, study and review the material over a period of time (use the night before as a final review not a cram session), pace yourself during the exam.

10. Master Every Course

True education is not about cramming material. True education is the process of expanding your capabilities, of bringing yourself into the world. Teachers can merely set the stage to create learning through your own actions.

STRATEGIES FOR LEARNING TO LEARN

Strategies are ways for learners to solve problems encountered in constructing meaning in any context. Unlike skills, strategies chosen by learners are modified to fit the demands of the learning situation. Strategic learners know how and when to alter, modify, combine, and test individual strategies against their prior knowledge, beliefs, and experiences. Strategy teaching does not require commercial materials, nor does it need to be a separate part of the curriculum; it does not consist of “tricks” or isolated activities. Rather, strategic instruction is a process that involves teaching students to read using procedures used by good readers, to write using approaches used by good writers, and to solve problem using techniques used by good problem solvers.

Both research and common sense provide a rationale for using learning strategies with students. There has been a shift in focus for curriculum and instruction based on practical research that has gained attention nationally. Research findings also indicate that the following actions particularly benefit low achieving students:

❖ ***Emphasizing meaning and understanding.*** Teachers who give priority to understanding and meaning help students to comprehend what written text says “between the lines,” assist students to communicate in writing thoughts that an audience would care to know, and demonstrate what mathematical procedures mean and how to tackle unfamiliar problems.

❖ ***Embedding skills in context.*** In each subject area, the teacher presents skills within the context of application. Comprehension skills are connected with the text being read, writing skills are a part of the act of composing, and math problems are solved with selected mathematical tools in context.

❖ ***Encouraging connections between subject areas and between school and life outside of school.*** Teachers focus on making connections between subject areas and between what is learned in school and the students’ home experiences.

For students to become genuinely strategic, they must participate in authentic learning opportunities that reflect their needs and access their prior knowledge. **The learning strategies are organized to engage students in exploring written text, oral text, and illustrations and to extend their understanding and help them expand meaning by making personal connections and sharing learning.** Some of the strategies are designed for group work, some are suggested for partners, and some are for individual engagement. Many of the strategies that focus on specific text include suggestions for group involvement before, during, and after the reading of content area materials. Given the social nature of learning, the strategies for expanding meaning include the sharing of personal interpretations through collaborative inquiry.

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The long-term goal of strategic teaching is to help students construct meaning through self-regulated use and adaptation of a wide repertoire of strategies. Teachers are encouraged to reflect and adapt these learning strategies to meet their students' needs as they become strategic learners. The following strategies may be used for learning to learn for optimal results.

A. Exploring Text

1. Prediction. This is a basic strategy for using prior knowledge to understand text. The learner generates a hypothesis about the type, purpose, or scope of a text to provide a framework for transacting with the text to confirm comprehension. Examples of teaching reading as thinking include prediction, directed reading, and confirming.

2. Brainstorming. Brainstorming is a way to value prior knowledge and prior experience by inviting students to associate concepts with a selected topic. All contributions are accepted and recorded. Group members review and discuss the related ideas and determine how to organize and use the information.

3. Pre Reading Plan (PReP). The Pre Reading Plan is a three-step demonstration for teachers to use before assigning reading to their students. It includes accessing prior knowledge, reflecting on associations, and reformulating knowledge.

4. K-W-L. K-W-L is a strategy that models the active thinking needed when reading expository text. The letters K, W, L stand for three activities students engage in when reading to learn: recalling that they KNOW, determining what they WANT to learn, and identifying what they LEARN as they read.

5. Cloze. Cloze refers to the procedure of using reading material from which words or partial words have been systematically deleted. This procedure has been adapted to serve different purposes. Selected deletion is a way to assess the learner's sense of language and to support prediction and confirmation strategies.

6. Questioning. Questions are tools for engaging attention, investigating ideas, assessing knowledge, and encouraging deeper understanding. Appropriate questions help students develop met cognition and assist them in problem-solving strategies. Teachers use questions to gain information about students' understanding.

7. Think-Along. A think-along is a teaching demonstration that makes the invisible thinking process of reading visible. It is an attempt on the part of the teacher to model the thinking process that any good reader engages in when reading. Students observe as the teacher thinks aloud while reading a text.

8. Big Books. These enlarged texts are designed for shared reading time so that students can be aware of print and how it works. Although the primary purpose is to share the enjoyment of stories or poetry, big books may be used to provide a linguistic framework for language learning within the context of a story or connected text. Predicting and confirming strategies may be used with big books that have predictable patterns and interesting plots.

9. Wordless Books. These are books that tell a story in pictures without words, or sometimes with minimal print. They are valuable resources to encourage language knowledge and usage and

also to assess oral and written language development. Student responses may include writing a narrative with or without dialogue or creating a script for a play, a puppet show, a radio dramatization, or a video production.

10. Schema Stories. Prior experience with text is helpful in developing a schema for identifying, thinking about, and talking about story structure to encourage comprehension. The experience of arranging parts of a story into a logical sequence assists students in making predictions and confirming language knowledge. The teacher selects short, well structured stories or informational pieces, divides them into sections, and places the parts in an envelope. Groups of students work together to determine the sense or schema of the piece.

B. Expanding Meaning

1. Semantic Mapping. Visual representations of connected ideas may be labelled as *semantic maps, semantic webs, concept maps, clusters, schema diagrams, or structured overviews*. After brainstorming and discussing associations on particular topics, students can use semantic mapping to organize the information in categories.

2. Sketch to Stretch. Representing ideas through drawing provides students an alternative way of responding to text. Students may do a listening activity and draw what they visualize, or they may read a text and represent their understanding through illustrations. Sketching may be used to assess students' knowledge of sequential order or main idea and details. Semantic webbing may be used to follow a sketch to stretch activity.

3. Problem Solving. Problem solving is a method of inquiry and is essential as an approach to finding solutions to problems. Development of student capacities for problem solving in all areas of learning is necessary to achieve the goal of helping students become more effective critical thinkers about what they read and hear. The basics of the 21st century include problem solving and communication.

4. Reciprocal Teaching. Reciprocal teaching is an instructional activity that takes place in the form of a dialogue between teachers and students regarding segments of text. The dialogue is structured by the use of four strategies: *summarizing, question generating, clarifying, and predicting*. The teacher and students take turns assuming the role of teacher in leading this dialogue.

5. Partner Reading. Partner reading encourages the sharing of ideas. Sometimes partners take turns reading aloud, sometimes they each read silently, but they talk about their perceptions, questions, and insights. Partners of different ages and abilities work well together. The teacher may be a student's partner to assess individual needs and strengths.

6. Say Something. This is a reading activity that invites conversation and discussion by partners or small groups of students. Each person receives a text for reading and responding. The participants decide cooperatively how far to read before stopping to talk about the author's ideas. Someone is designated to speak first, or to say something related to the text. Each person listens and responds with comments, reactions, or questions. They may reread the text to clarify understanding or answer questions.

7. Written Conversation. One sheet of paper is shared by partners as they carry on a silent conversation in writing. Young children can participate by drawing pictures, using invented spelling, or doing both. One person starts the conversation and often asks a question before handing the paper to the writing partner. This conversation continues as the writers respond to each other's comments and questions.

8. Responding to Reading as Writers. This strategy gives readers and writers a sense of authorship by involving students in sharing their writing with peers. The collaboration assists both readers and writers in the composing process as they listen and respond to the written work.

9. Journals and Logs.

a. Personal Journals. These journals are like diaries that record personal thoughts, feelings, ideas for exploration, and perplexing questions. The writer and reader are the same person and the contents are not necessarily shared with anyone else.

b. Dialogue Journals. Dialogue journals are another form of written conversation, or two-way responding that may focus on specific needs or issues. The interactive format extends the discussion between a teacher and a student, or between two students, over a period of time to explore understanding and inquiry related to reading, writing, or problem solving.

c. Travelling Journals. When groups of students are working together on a project, book, story, topic, question, or common theme, the individuals write to one another. This strategy is similar to written conversation. The journal may travel from person to person or remain in a central location for individuals to make regular entries. The teacher reads and responds to the group communication.

d. Reading Logs. General reading logs provide opportunities for students to record their thoughts and questions about anything they are reading, including content area or research material. Reading response logs are important components of reading discussion groups in which students share their written responses to initiate and continue discussion about specific text.

e. Learning Logs. These logs are an example of using writing as a way of knowing. They may include responses to a variety of content materials and concepts, or theme cycles, or they may focus on one particular lesson or idea. Students keep track of what they have learned about a particular topic in the learning log and use it for reflection and self-evaluation. Entries may include summaries, insights, and questions to extend learning.

10. Letters. Students need to know that letter writing is an important ability that serves a number of purposes. There are pen pal letters, letters to the editor, letters of application, consumer awareness letters, and friendly letters, notes, invitations, and messages that students may write to real people for real reasons.

11. Authoring Cycle. This is a framework for using the processes of reading and writing throughout the curriculum. Students are engaged in thinking, writing, reading, revising, sharing, editing, and presenting their written work. After choosing a topic, students think about what they want to say and begin a first draft of those ideas. They share, get suggestions from other students, and revise their work. Self-editing is encouraged before an outside editor reviews the work. Multiple drafts are kept in writing folders to monitor progress.

12. Spelling Strategies. Spelling strategies are ways that students focus on the conventions of written language.

13. Literature Study. Literature discussion groups give students a chance to talk about their perceptions and interpretations of a selected text. After reading the selection and responding in a literature log, they meet to discuss ideas and insights. After discussion, group members decide how far they will read and what they will consider for the next discussion time. Different students serve as discussion leaders.

14. Readers' Theatre. Reading aloud for a collective purpose is a variation of shared reading experiences. Readers' theatre is a group project that gives students the opportunity to work together to present a collaborative oral interpretation of a written text. Rehearsal demonstrates the importance of listening to others and of feeling the rhythm of blended voices. Scripts may be adapted from predictable language stories or those with distinctive dialogue.

15. Text Sets. The text sets used in literature study circles are usually multiple copies of the same text to provide a focus for shared meaning. However, text sets may be a collection of different books on a related topic. Using sets of different texts encourages students to compare, contrast, and make connections in a reading discussion group. Related poetry may be included as text sets as well as different versions of particular fairy tales or collections of books by the same author.

16. Student Research. Reading and writing are important tools in content area learning. Self-selected research promotes active engagement of students in focused study. Many of the questions that students want to research cut across disciplines. A curriculum based on inquiry includes the examination of various perspectives. Students need the opportunity to explore and share their discoveries by presenting their knowledge through various media.

17. Praise-Question-Polish (PQP). PQP is a framework used to assess understanding and evaluate learning. It has three columns for student responses to specific lessons, texts, topics, or focus studies. The praise column is for positive comments, the question column is for recording ideas that are not clear, and the polish column is for suggested changes to improve understanding.

18. Exit Slips. Exit slips are self-evaluations that prompt students to review their learning. They may be used at the end of a class session, the end of a day, the end of a week, or the end of a focused study, a presentation, or a theme unit. Students reflect on what they learned and request further assistance if needed.

BARRIERS TO LEARNING TO LEARN

The important barriers to learning to learn are a subset of the barriers to learning in general. The most important barriers to students are caused by the unique challenges of learning to learn, including:

1. Risk adverse students

Risk-averse students have more difficulty in independent learning because of their discomfort with experimentation which may "fail" in the sense of not giving a correct and final solution

immediately. Independent learning requires taking initiatives which develop knowledge but not solutions, becoming comfortable with failure and adept at how to use failure to improve.

2. Discomfort with uncertainty and ambiguity

Learning is more difficult when conditions, systems and outputs are not constant, when there is no one answers (uncertainty) or when these components are unclear (ambiguity). In response we focus on learning processes more than the products of those processes in evaluating our students work, valuing processes as "better" or "worse" instead of "right" or "wrong" and to respond to student questions with questions to provoke thought and processing instead of providing answers. The tools and learning process model of our strategy assist in providing a framework for ambiguous problems and systems.

3. Lack of interest in topic

Uninteresting topics and unrealistic contexts can lead to a lack of commitment to find solutions. We use reports from newspapers and magazines on topics of natural interest to our students (e.g. current events, drugs and love), manual and computer-based management flight simulators and professionally developed business case studies to lure students into the learning space and maintain their interest. For example one system dynamics model attempts to explain the fate of Romeo and Juliet (Radzicki, 19??).

4. Passive learning model

Some students prefer a passive learning role in which the instructor or reading material provides the lessons to be mastered or the exact set of steps and tools to apply to get the one right answer. This approach can be efficient for some types of learning and this mode of learning may be the only approach which students have experienced in their formal education. However independent learning requires an active constructivist approach to learning by both the student and instructor. These students need gentle introduction and guidance to a constructivist approach to learning.

5. Difficulty in reflecting on experience and observation

Thoughtful reflection and objective self evaluation is essential to independent learning. These skills are difficult to develop and require a degree of confidence which is often incompletely developed in students.

RECOMMENDATIONS

There are currently significant gaps in engagement with research and continuing professional development of staff in relation to 'what works' and 'what needs to work' in teaching and learning. Both are essential to develop appropriate pedagogy, curricula and successful integration of ICTs for learning to learn. However, strong emphasis has been placed recently on developing effective teaching and learning practice and learner voice – two key features of learning to learn. This is encouraging, and could form a foundation for future research and innovation. In the light of the above discussion the following recommendations are made:

- ❖ Government must recognise the importance of effective teaching and learning across all phases of learning in helping individuals of all ages achieve their potential.

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- ❖ In the light of the new tasks being assigned to the sector, greater investment in staff development is needed to share good practice and ensure that all staff has the skills to deliver and support learning effectively with the wide variety of learners with whom the sector engages.
- ❖ Investment in evidence-based research is also needed, including practitioner research and the development of an expectation that continuing education staff will engage in research and reflective practice, as happens in schools.
- ❖ Educationists must be amongst the stakeholders routinely consulted, to identify the research and professional development needs of the continuing education sector.
- ❖ The benefits that learning to learn approaches have brought in schools should be promoted to policymakers and to highlight the links between these and existing successful practices. Cooperation, collaboration and coherence should be encouraged across all phases of learning for the benefit of both learners and teachers.

CONCLUSION

With the increasing complexity of global society, development has become critically dependent on well-trained knowledge workers. That's why we need to prepare our students by teaching them how to learn, tap knowledge and apply such knowledge to problems – either in a global, national or local context. In the future, the adaptive and civilizing role of education needs to be combined in new ways with the developmental, creative, and transformative roles of learning. If education and training is to play its enabling role in supporting transition to the information economy then some strategies must be implemented in certain areas:

1. People – Supplying the skills to drive the information economy. This includes the leaders and workers with the vision and skills to develop and manage new approaches to learning and to implement coordinated and timely change.
2. Infrastructure – Ensuring access at an affordable price to advanced telecommunications and information technology infrastructure including high bandwidth. This includes reliable and sustainable infrastructure support systems within and between education, training and research providers to ensure interoperability.
3. Online content, applications and services – The sector needs to invest in new approaches to education and training content, applications and services which enhance the learning experience in Australia and develop leadership internationally.
4. Policy and organisational framework – Governments need to develop a comprehensive policy framework for education and training, including research and development that supports the information economy and a knowledge society.

If our children are to grow up to make important contributions to our society, it is essential that we provide them with powerful tools and experiences across the curriculum. This will require a new culture of teaching and learning that engages students as contributors.
(November, 2008)

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Conflict of Interests

The author declared no conflict of interests.

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Prevalence and Pattern of Sleep Disturbances among Mood Disorder Inpatients

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ABSTRACT

Sleep disorders are highly prevalent in psychiatric illnesses such as major depressive disorder, bipolar disorder. Early identification of sleep disturbances in these disorders would help us prevent the worsening of the illness further. We conducted a study regarding the sleep disturbances among patients admitted with a diagnosis of mood disorder using a questionnaire – Pittsburgh Sleep Quality Index. The details of the patients were collected by means of a semi structured proforma. We analysed the results statistically using SPSS software version 19. The results revealed an equivocal distribution of sleep disturbances in mood disorder. Sleep disturbances prevail in spite of being on medications. Thus our study results emphasize that equally poor sleep quality exists among all mood disorder inpatients irrespective of their diagnostic status. Hence treating the sleep disturbances in these patients will enhance their quality of life.

Keywords: *Prevalence, Pattern, Sleep Disturbances, Mood Disorder*

Depression is the most common and serious mental illness characterized by sadness, loss of interest and loss of appetite thus creating a negative effect on a person's feelings, thought process and the way of handling daily activities. A recent statistical analysis from the world health organization, 2015 has reported that globally around 350 million people are affected by depression. Bipolar disorder is one of the serious mental conditions in which a person suffers severe mood swings – concurrent elated mood (mania) and depressed mood (depression) that may be accompanied by psychotic symptoms with inter current periods either with or without the presence of affective symptoms. Bipolar disorder is the 6th leading cause of disability worldwide with a lifetime prevalence of about 3% in the general population^[1].

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Sleep disturbances which include a wide spectrum of problems from insomnia-sleep onset insomnia, sleep maintenance insomnia, terminal insomnia to parasomnia-nightmares, sleep walking, sleep talking, sleep apnoea affect the ability of a person to sleep well on a regular basis.

Sleep disturbances related to bipolar disorder run the gamut from sleeping too much to not sleeping at all. One of the reasons why sleep impairment is of great concern in bipolar affective disorder is because it acts as a prodrome for the onset of a bipolar episode^[2]. Therefore, in order to prevent the risk of relapse or hospitalization of bipolar patients, resetting their biological clock which regulates the sleep wake cycle can be useful^[3]. There exists a definite connection between sleep disruptions and major depression which when not looked at may even result in death by suicide.

Studies focusing on the coexistence of different types of sleep disturbances during a single episode of mood disorder are very few. The present study is aimed at examining the prevalence and coexistence of insomnia, hypersomnia and various other irregular sleep patterns during the acute phase of illness, trying to decipher whether sleep disturbances differ across these disorders.

REVIEW OF LITERATURE

Insomnia has been found to be associated with psychiatric illnesses in about two-third of patients and more than half of them had a mood disorder^[4]. Bipolar affective disorder patients exhibit various patterns of sleep disturbances either before the occurrence of a bipolar episode or during the course of illness and sometimes in both the conditions. Sleep disruptions are considered to be the most common prodrome of mania^[5,6]. About 69-99% of mania patients report reduced need for sleep^[7]. Sleep pattern in individuals affected by bipolar depression shows a great variation. About 38-78% of bipolar depression patients exhibit hypersomnia^[8]. There is strong association between poor sleep and low work performance in bipolar subjects^[11]. Although there exists an ample amount of great advances in the therapeutic modalities for bipolar disorder, it still remains as a severe and chronic psychiatric illness with a lifetime prevalence of 1%^[16]. Hence further studies on the role of sleep disturbances in bipolar episode relapse is required since impairment of sleep exhibits a strong connection with the recurrence of bipolar episodes.

Descriptive data regarding sleep in case of depression is the best documented in the field. Insomnia may occur in 60-80% of depressive patients^[17]. Sleep disturbances in major depressive disorder is characterized by sleep onset insomnia which exhibits increased sleep latency, sleep maintenance insomnia characterized by disruptions in the continuity of sleep, terminal insomnia characterized by early wakefulness and diminished slow wave sleep. The pattern of sleep in depression patients revealed that early waking (terminal insomnia) is more marked in patients with endogenous depression than in those with reactive depression^[19]. Thus insomnia has been regarded as one of the symptoms of depression. On the other hand, depression itself is a risk

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factor for insomnia^[20]. Therefore, despite recovery from other depressive symptoms, the depressive individuals have a greater chance of ending up their lives by committing suicide due to the sleep impairment encountered by them^[27]. The high rates, pervading presence and deleterious impact of sleep disturbances in depression has created the necessity of more studies in relation to it.

Aim of the study

- To study the prevalence and pattern of sleep disturbance among mood disorder patients admitted in the psychiatry ward at PSG IMS & R.

Objectives of the study

1. To estimate the prevalence of insomnia in mood disorder patients.
2. To estimate the pattern of insomnia in the subtypes of mood disorder (Unipolar depression, Bipolar depression, manic episodes, mixed episodes)
3. To correlate different patterns of insomnia with socioeconomic profile.

MATERIALS AND METHODS

Study Design

Cross sectional study

Study Population

Patients admitted in the psychiatric ward with a diagnosis of mood disorder [Bipolar disorder current episode Mania, Bipolar disorder current episode- Mixed, Major depressive episode (unipolar depression), recurrent depressive disorder] diagnosed by the consultant psychiatrist at the Psychiatry OPD, PSG IMS & R, using Diagnostic and Statistical Manual-IV TR.

Inclusion Criteria

1. Patients admitted with a diagnosis of mood disorder (using DSM IV TR) in psychiatric ward [Bipolar disorder current episode Mania, Bipolar disorder current episode- Mixed, Major depressive episode (unipolar depression), recurrent depressive disorder]
2. Patient/Informant willing for written informed consent for this study.

Exclusion Criteria

1. Patient/Informant not willing for written informed consent.
2. Comorbid substance use disorder (except nicotine dependence).
3. Comorbid psychiatric illness.
4. Comorbid medical illness which can contribute to sleep disturbance (Obstructive sleep apnoea, Cancer)

METHODOLOGY

Admitted Patients (n=60) diagnosed by the psychiatrists to have mood disorder [Bipolar disorder current episode Mania, Bipolar disorder current episode- Mixed, Major depressive episode (unipolar depression), recurrent depressive disorder] were screened for inclusion and exclusion criteria. With Prior informed consent, those participants who fulfill inclusion and exclusion criteria were recruited by consecutive sampling. The diagnosis of mood disorder- major depressive disorder, bipolar disorder with the current episode of mania or depression was established by SCID IV interview (Structured Clinical Interview for DSM-IV TR). A semi structured proforma was used to collect details on socio-demographic data, medical history, past psychiatric history & comorbid psychiatric illness. Current illness records were reviewed to get details on duration of illness, current episode, Number of episodes which required hospitalization, number of episodes which had suicidal attempts & rapid cycling course. Data regarding sleep was collected from the patient using translated (Tamil) self-administered scale, Pittsburgh Sleep Quality Index (PSQI) ^[30], which collects information on sleep latency, sleep efficiency, day time sleepiness, Need for medications for sleep & quality of sleep. PSQI had been validated in multiple cultures, languages and multiple psychiatric disorders, especially depression and bipolar disorder. ^[30] The study was conducted with prior approval of Institutional hospital ethics committee as per Indian Council of Medical research Guidelines for human studies.

Statistical Analysis

Data so collected were statistically evaluated using SPSS (Statistical Package for Social Science) software version 19. Socio demographic data were compared among the groups (Unipolar Depression, Bipolar depression & Bipolar Mania) using chi square test for categorical variables & ANOVA for continuous variables. The scores obtained by PSQI (pattern of sleep abnormalities) were compared among the groups using ANOVA with post Hoc Tukey test for within group differences. The difference among groups were tested for statistical significance with $P < 0.05$.

RESULTS

Recruited samples were totally 60 (Unipolar depression – 26, Bipolar Mania -16, Bipolar depression being 14). Comparison of socio-demographic data (Table 1) didn't show any statistical difference among 3 groups in age, gender, occupation, marital status, employment, socio economic status or residence, meaning that the population was not different among the groups in socio demographic data. On exploration of Clinical profile among 3 groups (Table 2), patients who belonged to Bipolar depression had earlier age of onset (25.36 ± 10.95 , $f=4.8$, $p=0.02$), when compared to subjects with bipolar mania (28.79 ± 9.57) & Unipolar depression (35.88 ± 13.76). Otherwise, there was no difference in the severity of illness as shown by Number of episodes, Number of episodes which required hospitalization, number of episodes which had suicidal attempts and number of episodes which had psychotic symptoms.

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Regarding sleep disturbances among the groups, as measured by PSQI, all groups had almost equal disturbances in duration of sleep, sleep disturbance, sleep latency, day's dysfunction due to sleepiness, sleep efficiency and overall sleep quality. As per PSQI scoring as Buysse DJ et al 1989^[30], sleep quality is considered poor if PSQI score is >5. In our study, it showed that all groups, Unipolar depression (10.27 ± 4.73), Bipolar Mania (10.63 ± 3.4) & Bipolar depression (10.14 ± 4.14) groups had poor quality of sleep during the acute phase of the illness during hospital stay in spite of being on medications (Mood stabilizers- 80%, Antipsychotics – 95%, Benzodiazepines -60%, Antidepressants – 20%). There was no statistical difference among the groups in percentage of use of benzodiazepines across the groups ($p=0.93$) (data not shown). There was no statistical difference in the overall score of PSQI ($F=0.06$, $P=0.93$), meaning that all three groups were equally affected by sleep disturbance.

DISCUSSION

In our study, it was observed that irrespective of diagnostic groups, all patients with mood disorder (Unipolar depression, Bipolar Mania, & Bipolar depression) show significant sleep disturbances as measured by PSQI during the acute phase of illness during the hospital stay in spite of being on medications.

Bipolar disorder interferes with the body's normal circadian rhythm and alters it leading to sleep disruptions^[7]. Sleep disturbance in bipolar disorder has become an important marker clinically in predicting the relapse of a bipolar episode^[6]. Early identification of pattern of sleep disturbances would help us prevent the worsening of sleep disorder^[3,10]. It plays a vital role in controlling the severity of the underlying mood disorder and it also reduces the rate of relapse^[2-4,9-11]. Interventions are made to counteract the negative impact created by the sleep impairment on the overall course of the disease, treatment outcomes and enhance the quality of life further^[12-14]. Euthymic bipolar patients exhibit clinically significant sleep disturbances, decrease in sleep efficiency, reduction in performing daytime activities and above all anxiety and stress about not sleeping well^[12]. Sleep impairment in bipolar disorder results in decrease in the energy level which in turn leads to lessened likelihood of engaging in healthy behaviors such as socializing with fellow people and taking care of one's own self^[13]. This has created the need for increase in the use of sleep medications in bipolar disorder^[14]. At the same time, bipolar depression is also linked to severe insomnia^[7]. Altogether bipolar depression exerts a lifetime prevalence of 8.2% for insomnia and a lifetime prevalence of 8% for alternating hypersomnia and insomnia^[9]. This implies that insomnia is highly prevalent in bipolar subjects^[10].

Among Unipolar depression, most common of sleep disturbance is sleep maintenance insomnia with a prevalence of 24.4%, sleep onset and terminal insomnia are also highly prevalent in depression with a prevalence rate of 23%^[18], which were not qualitatively examined in our study. In addition to insomnia, hypersomnia may also prevail in depression^[22] almost 30% prevalent among the depressed individuals^[23], but our study didn't find such association during

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inpatient stay. Excessive daytime sleepiness worsens the depressive symptoms^[24], which has been substantiated in our study. Nightmares are the most common parasomnia occurring in depression and is characterized by sudden arousal from deep sleep during which the individual exhibits anxiety, phobia, poor self image^[25, 28], but our study didn't find such association either in unipolar or bipolar phase of depression. Sleep disturbances is strongly associated with an increased risk for suicidal ideation.^[27]

Our study results need to be taken with caution because of following limitations. Our study was hospital based inpatient study which could not be generalized to outpatient mood disorders. Our sample size was small and thus needs a larger sample to find further associations. Our study subjects were on medications while the cross sectional assessment was made, and thus it may not reflect the actual sleep disturbances, but it will be unethical to remove the medications for doing the study.

CONCLUSION

In spite of above limitations, our study result emphasize that equally poor sleep quality exists among all in-patients^[29] who suffer from mood disorder irrespective of the diagnostic status & thus treating the sleep disturbances in these subjects will be of paramount importance. Future studies with larger sample size are required to generalize the findings across all mood disorders.

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Conflict of Interests

The author declared no conflict of interests.

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Table 1: Socio Demographic details of the subjects:

S.No	Characteristics	Unipolar Depression (n= 26)	Bipolar Mania (n=19)	Bipolar Depression (n=14)	F value/ χ	P value
1.	Age (Years) (Mean \pm S.D)	41.96 \pm 14.56	37.79 \pm 10.94	37.07 \pm 10.33	0.851	0.433
2.	Marital Status				2.58	0.275
	Single	5 (19%)	6 (32 %)	6 (29%)		
	Married	21 (81%)	13 (68%)	8 (71 %)		
3.	Gender				1.453	0.484
	Male	13(50%)	12 (63%)	6 (43%)		
	Female	13 (50 %)	7 (37%)	8 (57%)		
4	Occupation				4.98	0.289
	Unemployed	16 (62%)	8 (42%)	9 (64%)		

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S.No	Characteristics	Unipolar Depression (n= 26)	Bipolar Mania (n=19)	Bipolar Depression (n=14)	F value/ χ	P value
	Semiskilled	8 (31%)	11(58%)	4 (29%)		
	Skilled	2 (7%)	0 (0%)	1 (7%)		
5	Education					
	Illiterate	2 (7%)	2 (11%)	0	10.18	0.683
	Nursery	1 (4%)	0	0		
	Primary	6 (23%)	3 (18%)	1(7%)		
	Secondary	6 (23%)	4 (20%)	6 (43%)		
	Higher	3 (12%)	6 (31%)	2 (14%)		
	Undergraduate	7 (27%)	4 (20%)	5(36%)		
	Postgraduate	1 (4%)	0	0		
6	Socio Economic status				1.10	0.893
	Lower	10(39%)	7(37%)	4(29%)		
	Middle	14(53%)	11(58%)	8(57%)		
	Upper	2 (8%)	1 (5%)	2 (14%)		
7	Residence				1.99	0.368
	Urban	9 (35%)	9 (47%)	8(57%)		
	Rural	17(65%)	10(53%)	6(43%)		

Table 2: Clinical profile of subjects:

S.No	Characteristics	Unipolar Depression (n= 26)	Bipolar Mania (n=19)	Bipolar Depression (n=14)	F	P value
1.	Age of onset	35.88±13.76	28.79 ±9.57	25.36±10.95	4.8	0.02
2.	Number of episodes	5.15 ± 9.34	5.16±6.47	4.07±1.6	0.118	0.889

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S.No	Characteristics	Unipolar Depression (n= 26)	Bipolar Mania (n=19)	Bipolar Depression (n=14)	F	P value
3.	Number of episodes with psychotic symptoms	0.58±0.17	0.21±0.53	0.43±0.64	0.919	0.405
4.	Number of episodes with suicidal attempts	1.12±0.97	0.05 ± 0.22	0.57 ±0.32	0.086	0.917
5	Number of episodes which needed hospitalization	3.12±3.6	2.53±1.77	2.57±1.45	1.476	0.237

Table 3: Comparison of PSQI scores among the groups:

S.No	PSQI Components	Unipolar Depression (n= 26)	Bipolar Mania (n=19)	Bipolar Depression (n=14)	F	P value
1.	Duration of Sleep	1.27±0.82	1.47±0.77	1.57±0.85	0.71	0.49
2.	Sleep Disturbance	2.12±1.33	2.26±1.32	2.07±1.07	0.11	0.89
3.	Sleep Latency	1.69±1.15	2.11±1.10	1.93±1.26	0.70	0.5
4.	Days dysfunction due to sleepiness	1.12± 0.65	1.37±1.25	1.29±1.26	0.25	0.77
5.	Sleep efficiency	1.54±1.42	1.21±0.8	1.14±0.36	0.95	0.39
6.	Overall sleep quality	1.12±0.65	1.1±0.65	0.71±0.26	0.48	0.62
7.	Need for medications for sleep	1.31±1.05	1.21±0.85	1.43±1.08	0.19	0.82
8.	Total	10.27±4.73	10.63±3.4	10.14±4.14	0.06	0.93

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Suicidal Ideation and Hopelessness among Mexican Adolescents Studying In Public and Private Schools: The Role of Family Factors

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ABSTRACT

Background: The transition from childhood to adolescence is associated with suicidal ideation (SI) and feelings of hopelessness. The aim of this study was to investigate the prevalence of SI and hopelessness (and relevant family factors) among adolescents in southern Mexico studying in public and private high schools. **Methods:** A significant sample of high school students (15-19 years old) was taken in the city of Tuxtla Gutiérrez, the State of Chiapas, Mexico. The Beck scale for SI, the Beck hopelessness inventory, and a survey of family data were applied to adolescents, 364 in public and 240 in private high schools. **Results:** The teens in public schools showed a higher prevalence of hopelessness (32%) and SI+hopelessness (10%). In both public and private schools, these attitudes were more common among women as well as teens from small (3-4) families and those without a job. **Conclusions:** The behaviors found among teens of public and private high schools suggest the importance of a lack of family stability and economic solvency in the development of suicidal behavior. The present results may be useful in formulating strategies to prevent suicide.

Keywords: *Suicidal Ideation, Hopelessness, Adolescents, Working Teens, Public Schools, Private Schools, Type of Family, Chiapas.*

Suicide is a worldwide public health problem that leads to the death of approximately one million people each year (Ghasemi, Shaghghi & Allahverdipour, 2015). Between 2000 and

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2011 in Mexico, the official mortality rate due to suicide in children and adolescents doubled, going from 0.5 to 1.2 individuals per 100,000 inhabitants (Revuelta, Paredes, Rodríguez, Escondrillas & Calderón, 2015). In developing countries, however, official statistics about suicidal behavior (SB) are not very reliable, meaning that the real number of suicides is probably even higher (Pérez, Rivera, Atienzo, Castro, Leyva & Chavez, 2010).

The statistical category of SB comprises suicidal ideation (SI), a suicide attempt and a completed suicide (Rosales, Cordova & Rosalba, 2012; Villalobos, 2010). SI refers to unusual thoughts focused on a desire and/or plan to commit suicide (Thakur, Gupta, Thakur, Mazta & Sharma, 2015). It has been reported that up to 20% of the people suffering from SI attempt to commit suicide within one year (Borges, Orozco & Medina, 2012).

On the other hand, hopelessness is a cognitive alteration in which the individual forms negative expectations about the future (Assari & Lankarani, 2016; Beck, Weissman, Lester & Trexler, 1974; Gooding et al., 2015; Huen, Ip, Ho & Yip, 2015; Marco, Pérez & García, 2016). A close relationship has been proposed between hopelessness and SI, since the former is influential in creating a risk of suicide (Antypa, Van der Does & Penninx, 2010; Lamis, Ballard, May & Dvorak, 2016).

The prevalence of SI dramatically increases during the transition from childhood to adolescence (Tsypes & Gibb, 2016), and suicide attempts have been associated with the symptomology of a depressive state in adolescents (Carrasco & del Barrio, 2007; Viñas, Jane & Domenech, 2000). It is well known that SI can have a direct relation to diverse factors, especially the lack of harmony in the family dynamic (Donath, Graessel, Baier, Bleich & Hillemacher, 2014; Lee, Park, Han, Kim, Chun & Park, 2016; Thompson, Alonzo, Hu & Hasin, 2016), problems in the school environment (Arango, Opperman, Gipson & King, 2016; Thakur et al., 2015), sexual preference (Baiocco et al., 2014), and a low economic level (Song & Lee, 2016; Thompson et al., 2016).

Accordingly, the family can exercise a counteracting balance on the SB of adolescents. Firstly, the family can facilitate a timely diagnosis of SB and at the right moment intervene to contribute to prevention (Granö, Karjalainen, Ranta, Lindgren, Roine & Therman, 2016; Lee et al., 2016). Secondly, family dysfunction can form part of the adverse factors related to the risk of suicide in adolescents (Blandón, Carmona, Mendoza & Medina, 2015).

The importance of studying SB lies not only in the life or death question, but also in the fact that adolescents who suffer from this condition undergo great psychological suffering and emotional drain (the latter for the individual and family), and can end up with a physical handicap (Borges, Orozco, Benjet & Medina, 2010). Additionally, this problem has resulted in an economic cost to society in the range of billions of dollars (Klonsky, May & Saffer, 2016). It is a shame that, in

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spite of the increase in deaths by suicide in Mexican adolescents (Revuelta et al., 2015), the research in this field continues to be scarce, especially in the southern and southeastern region of the country.

Hence, the principal aim of the present study was to investigate, in adolescents from Chiapas studying in public or private high schools, the prevalence of feelings of hopelessness and SI, as well as some relevant family factors.

METHODS

Study design and instruments

This was a cross-sectional and retrospective study based on a questionnaire about family background and two inventories that explored SI and certain characteristics of a depressive state. The questionnaire had 7 questions, including age, gender, type of family, number of family members, and whether or not the teens worked. The Beck Scale for Suicide Ideation (BSSI) was used to quantify and evaluate the conscious recurrence to suicidal thoughts. It consists of 20 questions and is evaluated by giving a score, with a maximum of 40 points. This scale has been evaluated with Mexican adolescents, obtaining internal consistency indexes of $\alpha=0.84$ (González, Díaz, Ortiz, González & González, 2000). The other inventory used, the Beck Hopelessness Inventory (BHI), also consists of 20 questions and has obtained a coefficient of internal consistency of $\alpha=0.93$ (Beck et al., 1974).

Participants and sample selection

Included in the study were adolescents between 15 and 19 years of age, males and females, who were high school students (in public or private schools) living in the city of Tuxtla Gutiérrez, in the State of Chiapas, Mexico. The registrar of the Secretary of Public Education (Secretaría de Educación Pública, or SEP) in Tuxtla Gutiérrez (SEP-CHIAPAS) was consulted, finding that a total of 30,180 students were enrolled in public schools and 8,515 in private schools. The sample was calculated based on an estimated error of 6% and a 94% level of confidence, resulting in a sample integrated by 364 students of public schools and 240 students of private schools. For the conformation of both samples, the city was divided into four quadrants: north, south, east and west. A private and public school were chosen at random in each quadrant. The number of students per selected school was determined by using a stratified sample. The study was carried out from July to December of 2015.

Procedure

After obtaining authorization from the school authorities, each of the three instruments was applied in the classroom of the school in question. Firstly, psychologists trained in the use of these instruments explained the motive of the survey to the participating students. Voluntary participation was requested, with a guarantee of absolute anonymity and confidentiality in the

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management of information. Nobody refused to participate, and the process took approximately 30 minutes.

Data analysis

The data were first analyzed to determine simple frequency and percentages of the answers. Afterwards, the factors associated with SI and hopelessness were identified, and then two models of logistic regression were applied, obtaining odds ratios with a 95% confidence interval (CI 95%). The software used in all analysis was the Statistical Package for the Social Sciences (SPSS Statistics 20.0).

RESULTS

The prevalence of hopelessness was greater in the public schools (32%), with predominance among women (19%) compared to men (13%). SI occupied second place (14%), with the third place corresponding to a combination of both variables (10%) (Table I).

Also in public schools, the percentage of SI was greater in the adolescents from two-parent families (10%). For the teens with SI that belonged to single parent families, those with the mother as head of household more than doubled (3%) the percentage of those with the father as the head (1%). The pattern of the prevalence of hopelessness and the combination of SI and hopelessness was similar in regard to the type of family of the participating teens (Table 1).

Table I. Socioeconomic factors associated with suicidal ideation and hopelessness among adolescents in public schools.

Characteristics	Without suicidal ideation & hopelessness		With suicidal ideation		With hopelessness		With suicidal ideation & hopelessness		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender										
Women	98	27	28	8	70	19	22	6	218	60
Men	62	17	22	6	46	13	16	4	146	40
Type of family										
Two-parent (father & mother)	111	30	35	10	80	22	30	8	256	70
Single-parent (father)	3	1	4	1	4	1	0	0	11	3
Single-parent (mother)	46	13	11	3	32	9	8	2	97	27
Family members										
>4	34	9	6	2	4	1	8	2	52	14
3 – 4	126	35	44	12	11	31	30	8	312	86
Working										
Yes	28	8	6	2	34	9	9	2	77	21
No	132	36	44	12	82	23	29	8	287	79

n = number; % = percentage; numbers in bold print = the greatest percentage of cases in each category.

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The adolescents in public schools that did not work or that belonged to small families (3 or 4 members) predominated considerably in each of the variables studied (SI, hopelessness, and SI + hopelessness; Table II).

Table II. Socioeconomic factors associated with suicidal ideation and hopelessness among adolescents in private schools.

Characteristics	Without suicidal ideation & hopelessness		With suicidal ideation		With hopelessness		With suicidal ideation & hopelessness		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender										
Women	74	31	34	14	6	3	5	2	119	50
Men	76	32	27	11	8	3	10	4	121	50
Type of family										
Two-parent (father & mother)	116	48	42	18	9	4	8	3	175	73
Single-parent (father)	5	2	4	2	1	0.5	1	0.5	11	5
Single-parent (mother)	29	12	15	6	4	1	6	3	54	22
Family members										
>4	56	23	9	4	3	1	3	1	71	29
3 – 4	94	40	52	21	11	5	12	5	169	71
Working										
Yes	24	10	8	3	3	1	3	1	38	15
No	126	53	53	22	11	5	12	5	202	85
<i>n</i> = number; % = percentage; numbers in bold print = the greatest percentage of cases in each category.										

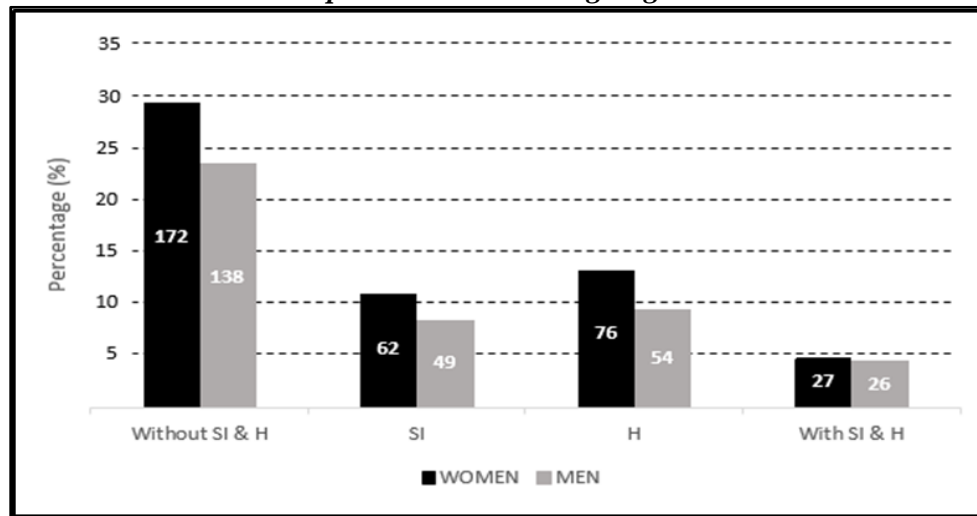
In private schools the prevalence of SI represented the greatest proportion (25%), with predominance among women (14%) compared to men (11%). Following a similar pattern was hopelessness (6%) or the combination of hopelessness and SI (6%). In the latter category, interestingly, men represented a greater percentage (4%) compared to women (2%) (Table II).

In the private schools, like in the public schools, the predominance of teens with SI (18%) and hopelessness (4%) lived in two-parent families. In regard to the combination of SI and hopelessness, curiously, there was a similar percentage of teens from two-parent families (3%) and one-parent families with the mother in charge (3%). Also like in public schools, most of the teens with suicide-related behavior (SI, hopelessness, SI + hopelessness) did not work and/or belonged to small families (3 or 4 members).

In the total population under study, a predominance of women versus men was observed with hopelessness (13% vs. 9%) or SI (11% vs. 8%). However, an equal percentage was found for each gender (4.5%) in the SI + hopelessness category (Figure 1).

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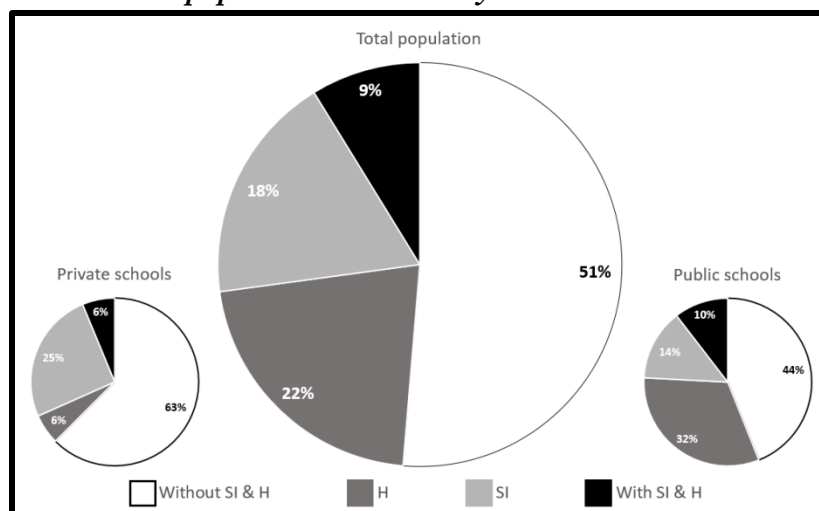
Figure 1. Suicidal ideation and hopelessness according to gender.



The bars represent the percentage of the total population under study. Without SI & H = without suicidal ideation and hopelessness; SI = with suicidal ideation; H = with hopelessness; With SI & H = with suicidal ideation and hopelessness.

Each of the behaviors were analyzed separately for the public and private schools (Figure 2), and compared with the total population under study. In private schools, SI occupied the first place among the three studied behaviors, followed by hopelessness and then SI + hopelessness. In public schools, on the other hand, hopelessness represented the greatest percentage, followed by SI and the combination. Although the percentage of the combination of SI and hopelessness represented the lowest percentage of the participating teens in both types of schools, it is noteworthy that the percentage in public schools (10%) was almost double that of private schools (6%). In the total population, hopelessness represented the greatest prevalence (22%), followed by SI (18%) and the combination of both behaviors (9%) (Figure 2).

Figure 2. Comparison of suicidal ideation and hopelessness in adolescents of public and private schools, and in the total population under study.



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Without SI & H = without suicidal ideation and hopelessness; SI = with suicidal ideation; H = with hopelessness; With SI & H = with suicidal ideation and hopelessness.

In the public schools, hopelessness was significantly correlated with living in small families (OR = 2.78; $p < 0.05$) or not working (OR=2.0; $p < 0.05$) (Table IIIa). In private schools, the only significant correlation was between SI and belonging to a small family (OR=2.99; $p < 0.05$, IC=95%) (Table IIIb).

Table IIIa. Estimated risk of suicidal ideation and hopelessness for adolescents in public schools (n = 364). Results based on multinomial logistic regression with simultaneous adjustment for multiple variables.

Characteristics	With suicidal ideation				With hopelessness			
	OR ¹	ES ²	P>z	IC 95% ³	OR	ES	P>z	IC 95%
Sex								
Women	1.00	-	-	-	1.00	-	-	-
Men	0.84	0.24	0.499	0.52 - 1.37	0.98	0.21	0.960	0.64 - 1.51
Type of family								
Two parents (Father & Mother)	1.00	-	-	-	1.00	-	-	-
Single parent (Father)	0.42	0.68	0.212	0.11 - 1.63	1.31	0.63	0.665	0.37 - 4.61
Single parent (Mother)	1.39	0.29	0.254	0.78 - 2.48	1.07	0.24	0.768	0.66 - 1.72
Family members								
>4	1.00	-	-	-	1.00	-	-	-
3 - 4	0.84	0.33	0.617	0.43 - 1.64	2.78	0.34	0.003	1.40 - 5.50
Working								
Yes	1.00	-	-	-	1.00	-	-	-
No	0.70	0.31	0.2801	0.38 - 1.32	2.00	0.25	0.007	1.20 - 3.33
1 Odds ratio 2 Standard error 3 Confidence interval								

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Table IIIb. Estimated risk of suicidal ideation and hopelessness (n = 240) for adolescents in private schools. Results based on multinominal logistic regression with simultaneous adjustment for multiple variables.

Characteristics	With suicidal ideation				With hopelessness			
	OR	ES	P>z	IC 95%	OR	ES	P>z	IC 95%
Sex								
Women	1.00	-	-	-	1.00	-	-	-
Men	0.90	0.28	0.733	0.52 - 1.58	0.58	0.40	0.184	0.26 - 1.29
Type of family								
Two-parent (father & mother)	1.00	-	-	-	1.00	-	-	-
Single-parent (father)	0.62	0.32	0.153	0.33 - 1.18	0.48	0.82	0.377	0.09 - 2.42
Single-parent (mother)	0.48	0.62	0.242	0.14 - 1.64	0.47	0.43	0.084	0.20 - 1.10
Family members								
>4	1.00	-	-	-	1.00	-	-	-
3 – 4	2.99	0.35	0.001	1.49 - 5.99	1.44	0.45	0.424	0.58 - 3.5
Working								
Yes	1.00	-	-	-	1.00	-	-	-
No	0.85	0.38	0.694	0.40 - 1.85	1.53	0.49	0.391	0.57 - 4.07

DISCUSSION

Pérez et al. reported in 2010 that the prevalence of SI in Mexican teens ranged from 13 to 49%, with predominance among women. Similar results have been found in this age group in distinct locations in Mexico. For example, SI was a behavior among 14.7% of teens in the State of Morelos (Rosales et al., 2012), 13% in the State of Guanajuato and 41% in the State of Chiapas (Pérez et al., 2010). The present study is in agreement with these reports, finding a prevalence of 27% of SI or SI + hopelessness for the teens of public and private schools, with a predominance among women.

In relation to women, in Chiapas there is an alarming presence of adverse socioeconomic factors such as poverty, teen pregnancy, and gender-based violence (González, Vega, Romero, Vega & Cabrera, 2008; INEGI, 2015; Martínez, García, Trujillo & Noriero, 2014). These conditions have been linked to the presence of SB in other contexts (González et al., 2003; Lee et al., 2016; Pérez, Uribe, Alexandra, Bahamón, Verdugo & Ochoa, 2013; Song & Lee, 2016; Thompson et al., 2016).

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On the other hand, the reported prevalence of depression among teens in Mexico ranges from 10-17% (Cubillas, Román, Abril & Galaviz, 2012; Villatoro et al., 2011). This is in agreement with the prevalence of hopelessness in the present study (22%), which is a symptom associated with depression that was observed in both types of schools.

The teens in public schools presented a much greater percentage of hopelessness compared to those in private schools, which coincides with a previous report in Mexico that explored depressive symptoms in similar situations (Moad, 2007), but differs from a study done in Argentina where the type of school apparently did not influence the prevalence of teen depression (Monterizino & Benejam, 2006). This discrepancy may be explained by the sample size and the particular population under study, as well as by the psychometric instrument utilized in each case.

The predominance of SI and hopelessness among teens from single-parent families, both in the private and public schools of the current study, may have a relation to the increase in marital dissolution in Tuxtla Gutiérrez (Briones, Vega, López, Castellanos & Suárez, 2014, Donath et al., 2014). This is in agreement with various studies that evidence a greater prevalence of SI in disintegrated or separated families in comparison to those with greater cohesion (Hedeland, Teilmann, Jørgensen & Thiesen, 2016; Klonsky et al., 2016; Pérez et al., 2013; Sarmiento & Aguilar, 2011).

In another context, the correlation found in the public high schools between adolescents who were not working and hopelessness is difficult to interpret, since lack of employment is predominant in this age group. However, it could possibly have a relation to what was reported in another study, that the condition of not working characterized young people who presented SB (Blandón et al., 2015). This suggests the possibility that having a job provides a positive influence on the security and economic independence of teens, which might result in a decrease in SB. Future studies are needed on this variable in order to explore these ideas.

Moreover, hopelessness has been proposed as a proximal risk factor of suicide in several theories (Assari & Lankarani, 2016; Beck et al., 1974; Gooding et al., 2015; Huen et al., 2015; Marco et al., 2016), as representing a greater risk of suicide (Thakur et al., 2015; Viñas et al., 2000), and as a predictor of eventual suicide (Lamis et al., 2016), especially in adolescents. Hence, it should be alarming that there was a great prevalence of hopelessness in the public schools. It is possible that the aforementioned dysfunctionality of the family nucleus is implicated in the widespread existence of this feeling about the future.

With relation to the economic profile of Mexican families, a new classification and distribution has recently been proposed in which the lower class constitutes 60%, the lower-middle class

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20%, the upper-middle class 14%, the lower-upper class 5%, and the highest segment of the upper class 1% (DOF, 2014).

These statistics are in line with the percentages of teens that were enrolled nationally in public (82.3%) or private high schools (17.7%) in 2011 (Weiss, 2012). That is, it is likely that teens in public schools tend to come from the 80% of people in the lower and lower-middle class, and that the students in private high schools generally belong to the upper middle and upper classes. Consequently, it is plausible that the high percentage of hopelessness and SI + hopelessness for teens in public high schools holds a certain relation to the economic problems of the family. This idea is reinforced by the report that found a lack of money in the household as the main cause of drop outs in public high schools (49%) (Martínez et al., 2012).

When comparing private and public high schools, there was a lower percentage of the combination of SI + hopelessness in the former (6% versus 10%). Nevertheless, this level in private schools is still worrisome, particularly due to the presence of some factors known to be involved in greater risk of suicide, such as the fact that the majority are men (González, Juárez, Montejo, Oseguera, Wagner & Jiménez, 2015) and belong to a high socioeconomic class (Lee et al., 2016).

Finally, it is necessary to create preventative strategies to prevent suicide, taking into account the current results so that intervention by public and private agencies can target the most vulnerable groups.

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Conflict of Interests

The author declared no conflict of interests.

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Reducing Sexism among Teenagers through a Gender-Sensitization Module

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ABSTRACT

The present study studying the effectiveness of a gender-sensitization module aimed at reducing the sexist concepts and thoughts of teenage male and female college students. A pre-test-post-test control group design was used for this purpose with a sample of 85 junior college students from Pune city. Ambivalent Sexism Inventory by Glick and Fiske (1996) was used to measure sexism. Data was analyzed using non-parametric tests, which showed a significant decrement in the scores of the experimental group, establishing the effectiveness of the program.

Keywords: *Sexism, Gender-Sensitization Module, Teenagers.*

Sexism or gender discrimination is a prejudice based on a person's sex or gender. The evolutionary approach argues that the gender role division appears as an adaptation to the challenges faced by our ancestral humans in the environment of evolutionary adaptation.

This bias or discrimination has been linked by cognitive theorists to stereotypes and gender roles, which include the belief that one sex is intrinsically superior to the other. These gender stereotypes may be in the context of the abilities, personality traits, and social behavior of the genders.

Sexism affects both men and women, but it's mostly the women who are the victims of sexism, especially in a patriarchal society like ours in India. India's Sex ratio in 2015 was 933 females: 1000 males, with a literacy rate of 53.7 percent for women as against 75.3 percent for males (Census India, 2011). In 2012 24,923 and in 2013 33,707 rape cases were reported in India (National Crime Records Bureau, 2013). The capital recorded the highest cases of rapes, with 1,636 rapes reported in India in the year of 2013 (India Today News, 2013). According to a

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Reducing Sexism among Teenagers through a Gender-Sensitization Module

National Family and Health Survey in 2005, total lifetime prevalence of domestic violence was 67 percent and 9 percent for sexual violence among women aged 15-49 years. Even with such alarming statistics rates of sexism are yet stagnant. A research by Rolleroy and Fedi (2012) explored the possibility of recognizing ambivalent, hostile and benevolent attitudes toward women and men as prejudiced and their effects on women's and men's self-perception. Results showed that benevolent sexism towards women are not recognized as sexist, while men seem more sensitive in recognizing sexist ideologies about their group, and that people evaluated benevolent source of sexism as more negative and more prejudiced than the hostile source. Sen, Kandapal and Tinani (2014) investigated the perception held by women respondents regarding various gender issues in the workplace, and whether there is an association between the comfort level among employees- working under male or female supervisors and that of supervisors supervising male or female employees. Results showed that issues wherein women female feel discriminated or given unequal treatment remains the same apart from which sector it is. Findings also showed that comfort levels of employees change while working with male and female supervisors and also while supervising male or female employees. Thus it is imperative that a module of gender-sensitization be designed and implemented.

Adolescence or teenage is the period when values and attitudes acquired since childhood are challenged in the face of those held by peers, society and role models. Also, it is the phase when most students have their first formal interaction with members of the opposite gender through college activities. An attempt to instill gender sensitivity at this age through a module developed by the researcher was thus considered appropriate for the present study. Possible gender-differences in the effectiveness of the module too were investigated. Sexism was assessed on the basis of the model of ambivalent sexism given by Glick and Fiske (1996) which comprises of benevolent sexism (the evaluations of gender that may subjectively appear rather positive, but are actually damaging to people and gender equity) and hostile sexism (overtly negative evaluation and stereotypes about a gender).

Hypothesis

The following hypothesis was framed for the present study

H₁ : After the intervention, decrement in sexism will be higher in the experimental group than in the control group.

METHOD

Sample

The data was collected from the junior-college wing of reputed colleges in Pune city. At the onset, 171 students aged between 15 – 17 years (Mean Age – 16 years) were included in the study. After eliminating those who were not regular throughout the intervention period however, 85 participants were retained for the final analysis. Of these 46 comprised the experimental

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group (17 male participants and 29 female participants), while 39 comprised the control group (19 male participants and 20 female participants).

Tools

Ambivalent Sexism Inventory (Glick & Fiske, 1996)

The Ambivalent Sexism Inventory includes 22 items covering two dimensions, that is, hostile sexism and benevolent sexism with a six-point Likert-type scale. Authors have reported internal consistency coefficients lying between .80s to .92, and the test-retest reliability coefficient of .87. Concurrent validity coefficients were reported to be lying between .40s and .80s, divergent validity coefficients were .20s to .30s, construct validity coefficients were .40s to .90s, while predictive validity coefficients ranged from .10s to .50s for different groups.

A personal data sheet was also included to obtain necessary demographic details of the participants like age, gender, class, number of siblings, parent's education, occupation and hobbies.

Procedure

Colleges were approached in order to get permission to conduct the research. Classes of 11th and 12th from all three faculties - arts, science and commerce were allotted by the colleges and were randomly assigned to the experimental and control group. The two groups were tested for equivalence on level of sexism to confirm non-significant difference on the variable at the onset itself. Mann-Whitney U statistics confirmed this equivalence across ambivalent sexism ($U = 849.00$, $p > .05$), hostile sexism ($U = 877.00$, $p > .05$), and benevolent sexism ($U = 874.00$, $p > .05$).

The research commenced with a pre-test for the experimental and the control group. The Pre-test was followed by a self made gender-sensitization module after a week. The intervention lasted for nearly two weeks with 50 minutes session alternate days for two weeks. The module was designed considering the participants age. The sessions were elaborated with activities with subtle messages about the topic to be discussed and were followed by a little homework which privileged the participants to observe themselves as well as others around them regarding different experiences or instances which exemplify the prevalence of sexism. The module included topics related to sexism, its different types, history about efforts done in the society to bring equality among the genders, gender roles, gender expectations, evolutionary process of gender role formation, difference between sex and gender, nature and nurture of sex differences, the 21st century need to change or alter gender roles or concept of gender roles.

During the intervention of the experimental group a two day session for the control group was conducted which included ice breaking and an interactive session on the exposure of media available today. After a week of the intervention the post-test was conducted on both the groups.

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Statistical analyses

The obtained data was analyzed using SPSS version 22. Owing to the small and dissimilar sample sizes and non-conformity to assumptions of parametric statistical testing, non-parametric statistical tests were used. Mann-Whitney U was used to assess differences in decrement scores (difference between pre-test scores and post-test scores) across the experimental and control groups. Similar analysis was performed to test possible gender-differences in the effectiveness of the intervention.

RESULTS

Table 1 Summary of Mann-Whitney U Test for Differences in Decrement Scores between the Experimental and Control Groups

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U
Ambivalent Sexism	Experimental	46	55.39	2603.50	310.500**
	Control	39	27.67	1051.50	
Hostile Sexism	Experimental	46	43.14	2027.50	886.500 (NS)
	Control	39	42.83	1627.50	
Benevolent Sexism	Experimental	46	57.19	2688.00	226.000**
	Control	39	25.45	967.00	

** = $p < .01$, NS (Not significant) = $p > .05$

Table 1 shows a significantly higher decrement in ambivalent and benevolent sexism scores in the post-test for the experimental group as compared to the control group ($U = 310.500$, $p < .01$; $U = 226.00$, $p < .01$ respectively). This effectiveness of the program in reducing the sexism was thus supported, except in the case of hostile sexism. Thus the hypothesis for the present study was partially supported.

To test any possible gender-differences in the effectiveness of the module, Mann-Whitney U statistics was first used to confirm equivalence on pre-test sexism across the experimental and control groups in both the genders, and then sexism decrement scores across the experimental and control group were compared among the male and female participants separately.

Table 2 Summary of Mann-Whitney U Test for Differences in Decrement Scores between the Experimental and Control Groups among Males

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U
Ambivalent Sexism	Experimental	18	28.50	513.00	0.000**
	Control	19	10.00	190.00	
Hostile Sexism	Experimental	18	24.31	437.50	75.500**
	Control	19	13.97	265.50	
Benevolent Sexism	Experimental	18	27.33	492.00	21.000**
	Control	19	11.11	211.00	

** = $p < .01$

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Table 2 shows a significantly higher decrement in ambivalent, hostile and benevolent sexism scores in the post-test for the experimental group as compared to the control group ($U = 0.000$, $p < .01$; $U = 75.500$, $p < .01$ and $U = 21.000$, $p < .01$ respectively). This demonstrates the effectiveness of the program in reducing the sexism among male participants.

Table 3 Summary of Mann-Whitney U Test for Differences in Decrement Scores between the Experimental and Control Groups among Females

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U
Ambivalent Sexism	Experimental	29	28.48	826.00	160.000**
	Control	19	18.42	350.00	
Hostile Sexism	Experimental	29	21.33	618.50	183.500 (NS)
	Control	19	29.34	557.50	
Benevolent Sexism	Experimental	29	30.67	889.50	96.500**
	Control	19	15.08	286.50	

** = $p < .01$, NS (Not significant) = $p > .05$

As seen in table 3, among the female participants decrement scores of the experimental group were significantly higher than those of the control group for ambivalent and benevolent sexism ($U = 160.000$, $p < .01$ and $U = 96.500$, $p < .01$ respectively) but not for hostile sexism ($U = 183.500$, $p > .05$). Unlike in the male participants, hostile sexism wasn't seen to reduce in the female participants owing to the intervention.

DISCUSSION

The study demonstrates that carefully designed interventions may help to reduce sexism among teenagers. A majority of the biases emerge from observational learning, conditioning and modeling. However, if considered as cognitive schemas, like all biases, gender biases too can be challenged and thus eradicated. The composition of the intervention participants comprising of both male and female students appears to have helped the participants reflect upon the fact that the biases that they hold against the opposite gender are rather common, and moreover, that the opposite gender too garners several biases against them. Through confronting, challenging, and identifying sexism in their day-to-day lives, and through practicing gender-sensitive acts, sexist attitudes and acts can be altered.

With reference to the slight gender differences observed in the effectiveness of the module, one reason may be that India is predominantly still a patriarchal society. A majority of the times, the perpetrators of sexism are males rather than females. Thus hostile sexism seems to be deeply rooted more among males in the society. Moreover, females probably consider the same too, and thus believe that hostile sexism is a characteristic attribute of males rather than females. Thus, while the module was successful in reducing ambivalent and benevolent sexism among males in the experimental group, it did not reduce significantly among their female counterparts.

CONCLUSIONS

On the basis of the findings of the study, the following conclusions can be drawn:

1. The module developed by the researcher significantly reduced levels of ambivalent, hostile and benevolent sexism among the male participants of the experimental group, as against in the control group, thus establishing the effectiveness of the program.
2. The effectiveness of the module was found to differ across gender of participants. The module developed by the researcher significantly reduced levels of ambivalent and benevolent sexism among the females of the experimental group, as against in the control group, but not in the case of hostile sexism.

IMPLICATIONS

The study demonstrates that sexist thoughts and attitudes of the participants were significantly reduced owing to the intervention on gender-sensitization. The study thus has significant implications for individual families, educational institutes and organizations and the society at large. Similar modules with necessary need-based alterations can be implemented with other age groups. For instance, similar modules may be incorporated in the curriculum in schools. In organizations as well, such modules will help promote and increase gender-sensitization, thus improving interpersonal relationships among team members and organizational climate and productivity in the long run. Even parents can benefit from such interventions as they will alter the germination of ideas of gender-bias in the first place. Components of this module can be incorporated in pre-marital counseling too, in order to ensure realistic expectations from the spouse and healthy un-biased communication between the partners.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

While the present study demonstrated that sexist attitudes and beliefs can be altered successfully through well designed interventions, it had its set of limitations that may be considered in similar studies in future. The fact that gender-differences were observed in the effectiveness of the intervention, there may be two possibilities to begin with. Firstly, gender-specific interventions need to be designed along with some common modules. While the present study with a heterosexual composition of experimental group had the benefit of challenging long-held gender-biases in the presence of the opposite gender while being in the comfort of the class premises, it probably limited the scope of challenging gender-specific biases. Secondly, the gender of the intervention facilitator too could influence its effectiveness. This aspect too may be investigated in future studies. Moreover, the effectiveness across different age group of participants too may be studied.

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Conflict of Interests

The author declared no conflict of interests.

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Presence and Search for Meaning in Life in College Students

Gaurav Thapliyal^{1*}

ABSTRACT

The major aim of the study was to find out the meaning in life among college students. A total of 60 students; 30 male and 30 female students were selected using non probability purposive sampling technique. The age range of all the subjects was between 18-23 years. All the subjects were assessed on the Meaning in Life Questionnaire (MLQ) to analyze the meaning in life of both the groups of students. Descriptive analysis of the data was done to obtain Mean and Standard Deviation. Independent sample t-test was used to find out the significant difference between the performance of boys and girls on different dimensions of meaning in life.

The findings of the study revealed that there is no significant difference between male and female college students on the dimensions of presence and search meaning in life. The study concluded that there is no gender differences on meaning in life.

Keywords: *Meaning in life, College students*

The meaning in life is considered to be an important part to well-being throughout the human life. Over the past forty years, research has attempted to understand and define the concept of meaning in life. A variety of definitions of meaning in life have been proposed but all theories agree that meaning in life is an important factor which contributes to well-being. Studies have endeavored to identify what gives meaning to life, to whether having meaning in life brings positive returns and to what life is like without meaning. Factors such as being in a stable relationship, having experienced a loss or being involved in a religion, have been suggested as possible influences on how individuals experience meaning in life and why they may search for meaning.

Throughout several areas of research and practice, the issue surrounding the meaning of life and meaning within life is essential to fulfilled individuals (Steger, 2009; Wong, 2009). Meaninglessness in life has been proposed to be akin to the existential fear of death. Researchers argue that when one is faced with meaninglessness, one can encounter several negative

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experiences. Thus, researchers would argue that the search for meaning and purpose is more relevant than the search for happiness (Wong, 2009). Researchers also argue that not only should we be measuring meaning in life but the structural properties of personal meaning systems, such as ‘differentiation (how diverse the sources of meaning are), elaboration (how people construct their own links and connections between events to give life purpose) and coherence (how well do all the features fit together) measures (Pohlmann et al., 2006). These measures enhance mental and physical health or wellbeing and predict life satisfaction (Pohlmann et al., 2006).

REVIEW OF LITERATURE

Singh et al (2014) initiated a study on "Meaning in Life as a correlate of Mental Health". This study investigated the associations between mental health (which was measured in terms of emotional, psychological and social well-being) and meaning in life. A sample of 100 boys and girls in the age range of 18-21 years was taken. Two measures namely Mental Health Continuum-Short Form (MHC-SF) and Meaning in Life questionnaire (MLQ) was administered. Results indicate a significant positive correlation between mental health and presence of meaning. However, no significant relationship was found with search for meaning.

Santos et al., (2012) initiated a research study on “Meaning in life and subjective well – being: Is a satisfying life meaningful?”. The aim of the study was to determine the relationship of meaning in life and subjective well-being among Filipino college students. The results of the study showed that meaning in life and subjective well-being had a significant positive relationship. A better understanding of the relationship between meaning in life and subjective well-being has implications relative to developing and achieving a greater sense of happiness and satisfaction in living.

Dogan et al (2012) conducted a research study on "Meaning in Life and Subjective Well-Being among Turkish University Students". The finding of the study revealed that presence of meaning in life and search for meaning in life significantly predict subjective wellbeing. According to regression analysis, meaning in life accounts for 34% of the variance within subjective wellbeing.

Steger et al. (2009) reported that in a group of smoking cessation patients, those people with higher Search scores tended to describe greater degrees of anxiety and poorer health, although those with higher Search scores who also had higher Presence scores did not demonstrate this association. Thus, the interaction and systematic study of presence and search for meaning is a worthwhile empirical endeavor (Park et al., 2010; Steger & Kashdan, 2007; Steger, Kashdan, Sullivan, & Lorentz, 2008; Steger, Kawabata, et al., 2008).

Rathi and Rastogi (2007) initiated a study on "Meaning in Life and Psychological Well-Being in Pre-Adolescents and Adolescents". The aim of the study was to examine meaning in life and

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psychological well-being in male and female students of pre- adolescence and adolescence periods. The study found that adolescents did not score significantly higher rather than pre-adolescents on the sub-tests of personal Meaning Production (PMP) and Well Being Manifestation Measure Scale (WBMMS). On the other hand, female students achieved high scored rather than male students on the sub tests of Personal Meaning Production (PMP).

METHODOLOGY

Aim

The aim of the study was to find out the meaning in life among college students.

Objectives

1. To assess the presence for meaning in life among college students.
2. To assess the search for meaning in life among college students.

Hypothesis

1. There is no significant difference between male and female college students on presence for meaning in life.
2. There is no significant difference between male and female college students on search for meaning in life.
3. There is no significant difference between male and female college students on composite score of meaning in life.

Research Design

It is a comparative study between two independent groups; male and female college students.

Sample

A total sample of 60 subjects were taken for this study. The sample comprises of 30 male and 30 female college students. The age range of the subjects were between 18 - 23 years. In this study, non probability purposive sampling technique was used to select the sample from the population. The data was collected from Jaipur city.

Inclusion And Exclusion Criteria Were As Follows:

Inclusion Criteria:-

- Healthy subjects in the age range of 18 - 23 years.
- Subjects who were cooperative.

Exclusion criteria:-

- Subjects who were below or above 18 and 23 years of age.
- Subjects with some major physical, organic and psychiatric illness
- Subjects who were illiterate and had poor understanding of basic English.
- Subjects unwilling to participate in the study.

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Tools

- **Socio demographic datasheet** was prepared by the investigator for collecting information about Name, Age, Sex, and Education.
- **Informed consent form:** Informed consent was taken from all the subjects included in the study. The subjects were assured about the confidentiality of their responses.
- **Meaning in Life Questionnaire** - The Meaning in Life Questionnaire assesses two dimensions of meaning in life i.e. presence and search for meaning in life. The Presence of Meaning subscale measures the how full respondents feel their lives are of meaning and the Search for Meaning subscale measures how engaged and motivated respondents are in efforts to find meaning or deepen their understanding of meaning in their lives.

Procedure

All the subjects were selected following the inclusion-exclusion criteria and informed consent was taken to participate in the present study. Meaning in life were administered on all subjects.

Statistical Analysis

Descriptive analysis of the data was done by using mean and standard deviation. SPSS software 16 (version) was used for analyzing the data.

RESULTS

Table 1: Socio-demographic details of male and female college students

Variable	Male Students (n=30)		Female students (n=30)	
	Mean	S.D.	Mean	S.D.
Age	19.63	1.35	20.63	1.40
Yrs of Education	13.86	0.81	13.96	0.76

Table 1 shows the socio-demographic details of male and female college students. It shows the Mean and Standard Deviation of male and female college students on general characteristics including age, number of years of education. The descriptive analysis revealed that the Mean age of male students was 19.63 ± 1.35 and female students was 20.63 ± 1.40 . It also shows the Mean and S.D of male and female students of educational years was 13.86 ± 0.81 and 13.96 ± 0.76 respectively.

Table 2: Comparison of male and female college students on overall Meaning in life

Variable	Male Students		Female students	
	Mean	S.D.	Mean	S.D.
Meaning in Life	50.86	8.92	50.86	7.18

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Table 2 shows the comparison of mean scores of male and female college students on composite score of meaning in life. As can be seen from this table, there is no significant difference between male and female students on overall meaning in life.

Table 3: Comparison of male and female college students on different dimensions of Meaning in life

S. No	Meaning in Life Dimension	Male students(n=30)	Female Students(n=30)
		Mean \pm S.D.	Mean \pm S.D.
1	Presence of meaning	25.66(5.43)	26.60(5.71)
2	Search for meaning	25.20(7.42)	24.26(7.40)

Table 3 shows the comparison of mean scores of male and female college students on different dimensions of meaning in life. As can be seen from this table, there is no significant difference between male and female students on presence of meaning and search for meaning.

DISCUSSION

Table 1 showed that socio demographic details of all the subjects. In the present study, total samples of 60 subjects were taken. The sample consists of two groups. Both the groups were matched according to age and gender. The first group included 30 male and another group included 30 female students. The age range of the present study was kept between 18 -23 years. In the context of education, all the subjects who were studying in colleges taken place. As all the subjects were selected from Jaipur City.

The results obtained by all the subjects on Meaning in Life are summarized in Table 2. Meaning in Life developed by Steger et. al (2006) was used to measure presence of meaning (how much respondents feel their lives have meaning), and Search for Meaning (how much respondents strive to find meaning and understanding in their lives) among adolescents. It was found that in all the dimensions all the subjects had given same number of responses in the test.

Table 3 described the different dimensions of meaning in life of all the subjects. In the presence of meaning as well as search for meaning in life, both the group had equal number of total scores.

Table 4 revealed the comparison between both the groups which showed no significant difference between male and female students on overall meaning in life.

CONCLUSION

The findings of the present study revealed that there is no significant difference between male and female college students on their presence and search for meaning in life.

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Conflict of Interests

The author declared no conflict of interests.

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Swadhyaya Scale: An Indian Perspective

Kamlesh Singh^{1*}, Pooja Sahni²

ABSTRACT

Aim of the present paper was to develop a test on Swadhyaya (Self-study) defined in Indian philosophical and religious scriptures. The study was conducted in two phases; 150 participants (M =133 and F= 17) with age range=17-54 yrs. (M = 21.43 yrs., & SD= 6.79) in the pilot study and 491 participants (Male= 310 & Female =181) with 18 – 70 years age range (M=32.16 yrs. & SD= 10.92) in the main study. Three factors solution was finalized through exploratory factor analysis; Study of Scriptures, Self-introspection and Self-discipline with 55.74 % of total variance. Scale of Positive and Negative Experiences and Flourishing Scale (SPANE & FS, Diener et. al., 2010) and Sukha- Dukha scale (Singh, Raina and Sahni, 2016) were used to establish concurrent validity. The scale was found psychometrically robust with high internal consistency ($\alpha=0.79$) and acceptable concurrent validity as significant positive correlations of Swadhyaya and its factors with Sukha, SPANE-P and FS were obtained.

Keywords: *Swadhyaya, Sukha-Dukha, Positive & Negative Experiences, Flourishing*

In eastern philosophy, *Swadhyaya* is practiced in many forms. Sometimes it is also understood as the study of scriptures and books. One form of *Swadhyaya* is mantra meditation, where certain sound or words with meaning are recited, anchoring the mind to one thought (Asara, 2008). This practice helps draw the mind away from outward-going tendencies, silencing the crowding of thoughts, and ultimately towards inward feeling of resonance. It can alternatively be any music, sermon, chant, inspirational book that absorbs the person. In another form it is practiced as a self-reflection process, where one silently meditates in *Asana* on one's own behaviours, motivations and plans. Self-study is contemplation of one's own motives and behaviors and one's circumstances and the surrounding environment. Such practice provides a direction and keeps us on the right track (Saraswati, 2005). It helps self- introspection - assessing aim and direction of one's life and how desirable changes may lead to a more fulfilling self (Hixon & Swann, 1993). In this process of reorientation, *Swadhyaya* appears as self-discipline, such as perseverance, restraint, endurance, thinking before acting and as the ability to carry out one's decisions and plans, in spite of inconvenience, hardships or obstacles. When in practice,

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Swadhyaya helps to strengthen self-control, decisiveness and determination. It develops patience and perseverance and helps one get rid of negative habits. This disciplines oneself towards forgoing immediate gratification, to achieve greater and more satisfying goals in the long run (Sasson, 2016; Mischel, Cantor and Feldman, 1996), often defined as self –control- an ability to inhibit or overrule immediate urges to attain a long term goal (Carver & Scheier, 1981, 1982; De Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012; Metcalfe & Mischel, 1999; Vohs & Baumeister, 2004). Such type of self- control is of invaluable importance for well- being (Gillebaart and Ridder, 2015). In line with this notion, many studies have demonstrated that the ability to self-control is vital for human functioning and that it leads to improved work and academic performance, more satisfying relationships, and basically healthier and happier lives (e.g., Duckworth & Seligman, 2005; Hofmann, Luhmann, Fischer, Vohs, & Baumeister, 2014; Mischel, Shoda, & Peake, 1988; Tangney, Baumeister, & Boone, 2004).

There has been research which shows self – control to be the only one among 32 measured personality variables (e.g., self-esteem, extraversion, energy level) that predicted performance of college students in terms of grade point average (GPA) more robustly than any IQ test scores did. (Wolfe and Johnson, 1996). In a similar study it was found that self-discipline predicted overall academic performance more robustly than did Intelligence test (Duckworth and Seligman, 2005). Self-discipline also correlates positively with self-reported grades, as well as a broad array of personal and interpersonal strengths, (Tangney et al, 2004)

Further, Self-determination theory (SDT) (Ryan & Deci 2000) has embraced the concept of eudaimonia, or human flourishing, as a central definitional aspect of well-being. SDT posits that feeling both relatively more positive affect and less negative affect do frequently point to psychological wellness for, as Rogers (1963) suggested, emotional states are indicative of organismic valuation processes. That is, introspection of positive and negative affect is useful in appraisals of the relevance and valence of events and conditions of life with respect to the self. Diener et al (2010) reiterated that human flourishing encompasses purpose in life, relationships, self-esteem, feelings of competence, and optimism. Whereas happiness results from a balance between positive and negative affect also. The inclusion of both general and specific feelings may reflect a wide range of respondents' emotions and feelings regardless of their culture, (Diener et al 2010).

Although in the west, related concepts like self-discipline self- control and self-introspection are widely researched. However there remains a gap to study and understand these concepts and their measures on a broader ambit of *Swadhyaya* in the Indian context. In the present paper, we develop a scale to measure *Swadhyaya* and to study its validity by using various well-being (WB) tests such as *sukha – dukha* scale based on Indian philosophical/religious WB concept (Singh, Raina and Sahni, 2016) , flourishing scale and negative and positive experience scales (Diener et al 2010). It was hypothesized that *Swadhyaya* and its factors would be positively

correlated with *Sukha*, positive experiences and flourishing and negatively correlated with negative experiences and *Dukha*.

METHOD

The study was conducted in two phases namely; a pilot study and the main study. The pilot study was further subdivided into four steps namely; (i) item generation, (ii) item review, refinement and modification (iii) assessment of psychometric properties. The main study comprised of item analysis, exploratory factor analysis and concurrent validation of the scale. This methodology ensured that the items retained at the end of the scale were reliable and valid.

PHASE 1: PILOT STUDY

In this phase, item generation, item review, item refinement, item modification and psychometric properties of the items were studied. Indian philosophical/religious texts describing *Swadhyaya* was referred along with yogic literature such as *Patanjali Yoga Sutras*. The various connotations of *Swadhyaya* like self-study, self-discipline, self-awareness and introspection were also included in the review of literature for item generation.

Item Generation

On the basis of the extensive review of literature a pool of 22 potential items in Hindi language to find out the extent to which our participants perceive *Swadhyaya*.

Item Review, Refinement and Modification

First of all, content validity of the scale was established. Four subject experts reviewed the items in the context of their clarity (Visser, Krosnick, and Lavrakas, 2000), readability level and their relevance for the purpose on a four point rating scale with 1 as “least relevant” to 4 as “most relevant”. Items were screened based on qualitative feedback on content and quantitative scoring with Content validity index $CVI > 0.75$ (Yaghmaie, 2003). One item was deleted based on this criteria. The item was also perceived to be difficult in understanding by 2 of the experts for an average Hindi speaking population. Thus, the scale comprised of remaining 21 items.

Participants & Procedure

One hundred and fifty participants, 17 female (11.3%) and 133 male (88.7%) participated in the pilot study. The age range was 17 to 54 years with mean age 21.43 yrs. and $SD = 6.79$. Only 12 participants were working while rest of 138 participants were college going students and 7 participants were married whereas 143 participants were unmarried.

Front page of the questionnaire had questions on demographic information (e.g. age, gender, marital status and occupation) and consent form. Participants were asked to rate the degree to which they experience or practice *Swadhyaya* in their lives on a 5 point scale from 1 (never) to 5 (always). Data was collected on Hindi speaking population.

Data Analysis & Results

The data were analyzed using SPSS version 17.0. The data were screened to check the minimum (1) and maximum (5) values. SPSS preliminary frequency output was analysed for missing values. Frequency analysis for each item indicated that responses for each domain had minimum and maximum values with the range of 1–5. The percentage of missing values was under 5% and random in nature. The missing data was replaced by the series mean method. Then, descriptive analysis and exploratory factor analysis was calculated.

Items were screened for outliers on the basis of mean and standard deviation (SD). For the robustness of the scale a strict criteria of Mean acceptable range 2-4 and SD>1.0 (Jackson 1970) was followed and *Swadhyaya* items had a mean range of 2.23-3.86 and SD of 1.05-1.55. All the items were also found within limits for skewness and kurtosis ($Sk < 2.0$, Tabachnick & Fidell, 1996) and ($K < 7.0$, Finch, 1996). Corrected item-total correlation ranging from $r = 0.24$ to 0.69 (< 0.20 , Kline, 1993) and all Alphas for if-item deleted were high (above $\alpha = .86$) Thus all items were retained for further analysis at this stage.

Factor Analysis was conducted and the KMO (0.87) and Bartlett Measure of sampling adequacy ($p < 0.01$) was found to be very good (> 0.80 , Field, 2004). Factor analysis was applied with Principal Component Analysis with Varimax rotation. Five factors emerged with > 1 eigen value which explained 60.43 % of total variance. However, factor solution was not finalized at this stage.

PHASE 2: MAIN STUDY

The aim of the study was to reassess the psychometric properties and validate the scale with 21 items from pilot study and to explore a final factor solution.

Participants and Procedure

Five hundred participants were recruited for the study out of which 9 were rejected due to incomplete data. Remaining data of 491 participants from urban and semi urban settings comprised of 181 female and 310 male. Age range was from 18 – 70 years ($M = 32.16$ yrs. and $SD = 10.92$). 76.7% participants were married.

A booklet, containing demographic sheet, consent form, newly developed 21 items *Swadhyaya* scale with selected scales for validation, was used in Hindi for data collection.

Measures used for Swadhyaya scale validation

Scale of Positive and Negative Experiences (SPANE, Diener et. al., 2010): SPANE is a 12 item scale that is rated on 5 point Likert scale. Singh (2014) has translated the scale in Hindi and found thorough psychometric properties of the Hindi translated version with Cronbach Alpha for

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SPANE P $\alpha = 0.69$ and SPANE N $\alpha = 0.69$. Alpha Reliability of SPANE P $\alpha = 0.87$, SPANE N and $\alpha = 0.76$ was found in the current study.

Flourishing Scale (FS; Diener et al., 2010): This is an 8 items scale that provides one factor of the positive human functioning. The scale was found to have acceptable Cronbach's alpha reliability $\alpha=0.87$ (Diener et al. 2010). Singh (2014) has translated the scale in Hindi and found thorough psychometric properties of the Hindi translated version with very good Cronbach and in the present study α was 0.93.

Sukha- Dukha scale (Singh, Raina and Sahni, 2016): This is a 41 items scale, 19 items for *sukha* and 22 items for *dukha*. The scale had very good reliability for *sukha* $\alpha=0.85$ and *dukha* $\alpha=0.91$ (Singh, et al 2016).

ANALYSES & RESULTS

The data were analyzed using SPSS version 17.0. A preliminary frequency output was analysed for missing values. Frequency analysis for each item showed that responses for each domain had minimum and maximum values with the range of 1–5. The percentage of missing values was under 5% and random. The missing data was replaced by the series mean method. A preliminary analysis to check the Mean, SD, Skewness & Kurtosis values, Corrected item-total correlation and alpha if item deleted of all the *swadhyaya* scale's items was done.

Items were screened for outliers on the basis of mean and SD. For the robustness of the scale a strict criteria of $SD > 1.0$ and Mean range 2-4 (Jackson 1970) was followed. Four items were deleted due to less than 1 SD and the remaining items had acceptable range of Mean & SD (M range = 2.53 - 3.87 and SD range = 1.00- 1.19). All the items were found within limits for skewness (range= -0.76 to 0.19) ($sk < 2.0$, Tabachnick & Fidell, 1996) and kurtosis (range= -0.81 to -.075) ($K < 7.0$, Finch, 1996). Further one item was discarded due to low corrected item-total correlation (< 0.20 , Kline, 1993) and remaining items range was acceptable ($r = 0.23$ to 0.60). All Alphas for if-item deleted were high (above $\alpha = .81$) and in acceptable range.

The KMO values and Bartlett test for *Swadhyaya* Scale (0.85, $p < 0.001$) was very good. Hence, the data were found fit for subsequent factor analyses.

Principal Component Analysis with Varimax rotation was used on remaining 16 items. Initially, four factors emerged with > 1 eigen value but the fourth factor had only 2 items. Russell (2002) reported that at least three items per factor are required for a factor model to be identified. Therefore, three factor solution was explored. This was accepted as the factor solution showed at least of three items under each factor with all loadings above 0.40. Consequently, a 3 factor solution was observed to be most suitable, explaining 55.70% of variance (see table no.1 for details).

Table 1: Exploratory Factor Analysis of Swadhyaya Scale

Item no.	F1	F2	F3
(S2)	.84		
(S3)	.78		
(S1)	.77		
(S4)	.74		
(S19)		.79	
(S18)		.76	
(S20)		.76	
(S21)		.68	
(S17)		.61	
(S5)		.52	
(S11)			.74
(S12)			.72
(S10)			.70
(S14)			.68
(S13)			.63
(S16)			.47
Eigen value	4.78	2.79	1.34
% of variance	29.79	17.44	8.47

Note: Principal Component Analysis with Varimax rotation was used.

Three factors that were emerged are explained as follows:

Study of Scriptures (Factor 1-SS): According to Hindu philosophy, studying and analysing religious scriptures helps in better understanding of the concept of God. It helps knowing the self. This sub factor consisted of 4 items, like Reflecting on the teachings, reading and following spiritual teachings, agreeing on the spiritual texts lead to strong mental state. The eigenvalue was 4.78 and it explained 29.89 % age of variance.

Introspection (Factor 2 - IS): Introspection refers the examination of one's own conscious thoughts and feelings. It also refers to relating one's experiences to actions. It activates spirituality and ultimately disassociation from negativity. In psychology the process of introspection relies exclusively on observation of one's mental state, while in a spiritual context it may refer to the examination of one's inner self. The factor consisted of 6 items. The eigenvalue was 2.79 and it explained 17.44% age of variance.

Self - discipline (Factor 3- SD): Contrary to common belief, self-discipline does not mean being harsh toward yourself, or living a limited, restrictive lifestyle. Self-discipline means self-control, which is a sign of inner strength and control of yourself, your actions, and your reactions. It leads to a determined, steady and regular approach towards achieving goals. The factor consisted of 6 items. The eigenvalue was 1.35 and it explained 8.47 %age of variance.

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Reliability and Concurrent Validity

The concurrent validity was established by correlating *Swadhyaya* scale and its factors with *Sukha*, *Dukha*, Flourishing, SPANE P and SPANE N as validating domains. The results showed significant correlation supporting our hypothesis as *Swadhyaya* and its sub-factors being positively correlated with *Sukha*, flourishing and SPANE P (positive experiences) however correlation with *Dukha* and SPANE N (negative experiences) were insignificant. The Scale reliability was very good for the *Swadhyaya* and its dimensions ($\alpha = 0.78$ to 0.85), (see table no 2 for details).

Table 2: Correlation between Swadhyaya scale & its factors with validating scales

	<i>Sukha</i>	<i>Dukha</i>	SPANEP	SPANEN	FS	F1	F2	F3	<i>Swadhyaya</i>
<i>Sukha</i>	(0.86)								
<i>Dukha</i>	-.33**	(0.91)							
SPANE P	.63**	-.44**	(0.87)						
SPANE N	-.29**	.68**	-.41**	(0.76)					
FS	.54**	-.36**	.60**	-.31**	(0.93)				
SS (F1)	.20**	-.07	.16**	.04	.21**	(0.85)			
IS (F2)	.33**	-.07	.35**	-.06	.46**	.25**	(0.78)		
SD (F3)	.19**	.06	.18**	.04	.07	.43**	.15**	(0.79)	
<i>Swadhyaya</i>	.34**	-.01	.34**	.00	.34**	.57**	.71**	.79**	(0.80)

** Correlation is significant at the 0.01 level (2-tailed). Alpha reliability has been displayed in italics, *Swadhyaya* factors-F1-F3; Study of Scriptures (SS), Self-introspection (IS) and Self-discipline (SD). Cronbach alphas for the scales/sub-scales displayed across the diagonal in bold italics.

DISCUSSION

The main purpose of the study was to construct a scale to measure *Swadhyaya* as defined by Indian philosophical/religious texts. It adds to the growing research literature on indigenous Indian concepts like *Triguna* (Misra, Suvasini, and Srivastava, 2000; Murthy and Kumar, 2007; Khanna, Singh, Singla and Verma, 2013), *Sat-chit-anand* (Singh, Khari, Amonkar, Arya and Kasav, 2013), *Anasakti* (Singh & Raina, 2015; Bhushan and Jha, 2005; Banth and Talwar, 2012), *Sukha* and *Dukha* (Singh, Raina & Sahni, 2016) etc. The psychometric properties showed that the test is reliable and a valid measure. Earlier researches (Singh, Misra and Raad, 2013) have emphasized the importance of the vernacular language in the study of psychological variables. More so in Indian context where over 41 % of population speak Hindi as per census 2001. Therefore, the scale has been developed in Hindi first.

All retained items of the scale have acceptable descriptive statistics like Mean range, SD, skewness, kurtosis, corrected Item- total correlations (CIT) and alphas if item deleted.

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The empirical structure of final scale that emerged consisted of 16 items, with a three factor structure explaining 55.70% of variance. It was found to be both psychometrically sound and most proximal to the conceptual framework. All factor loadings of retained items were greater than 0.40. For interpretive purposes cut-off point of loadings of 0.40 or higher is suggested (Stevens, 2002). The factor structure was in line with the Indian philosophy that views *Swadhyaya* not only as study of scriptures but as a *niyama* - an approach of achieving a state of introspection, self-discipline, self-control, self-determination and ultimately self-awareness. Correlations between the validating scales and *Swadhyaya* scale and its factors further validated the scale. The present study findings suggested that *Swadhyaya* was positively associated with positive facets of WB, however it was not associated with negative facets of WB. The overall scale exhibits high internal consistency ($\alpha=0.80$).

Thus this study makes theoretical contributions towards enriching the meaning of self-study, self-discipline, self-introspection, self-awareness and well-being in the Indian context. The theory may enhance the understanding and importance of *Swadhyaya*. Conceptualization of *Swadhyaya* and its measure was an attempt to synergize Indian concepts with main stream of psychology. The empirical validation reduces the data-theory disconnect, providing it robustness and scope for testing across cultures.

LIMITATIONS AND FUTURE SCOPE

The factor structured investigated in the exploratory factor analysis can be established through confirmatory factor analysis and the resultant model can still be tested on a wider population. The role of demographic variables such as gender, age, religion can also be studied. Lastly, Scale may be translated in other languages for its broader use.

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Conflict of Interests

The author declared no conflict of interests.

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The Significance of Educational Technology in Teaching Learning process

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ABSTRACT

Technology is an integral element in the world today. Technology in today's world touches, influences and shapes every aspect of human life. Technology plays significant roles in work places, education, entertainments and the way of life surviving. Technology acts as catalysts for changes, change in work environments, handily and exchanging information, teaching process and methods, learning approaches, research arena and in using knowledge, information. Therefore, the present paper discusses the role of technology, the promise, benefits, limitation, challenges and key hurdles of integration to education system.

Keywords: *Technology, Teachers, Education, Institutions*

Educational Technology sometimes shortens to Edutech or Edtech is a wide field. Educational technology is a design science, a club of various kinds of research area dealing with basic, fundamental and key issues of learning, teaching and social organization. It is a process in which modern technology is used in an organized and systematic way for improvement, betterments and enhancements of the quality of the education. Technology means systematic, organized application of scientific or others organized knowledge to practical work. Therefore, educational technology is depends on theoretical knowledge from different disciplines (Communication, psychology, sociology, philosophy, artificial intelligence, computer science etc.) Plus experiential knowledge from educational practice. (Natalie Deseryver) . Educational technology aims at increasing efficiency, effectiveness of current practices and simultaneously aims at bringing pedagogical changes for betterment of education. It is considered as design science addressing fundamental, basic, important issues of learning, teaching and social organization and thus makes use of full range of modern social science and life Science methodology.

“Technology provides us with powerful tools to try out different designs, so that instead of theories of education, we may begin to develop a science of education. But it cannot be an

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analytic science like physics or psychology; rather it must be a design science more like aeronautics or artificial intelligence. For example, in aeronautics the goal is to elucidate how different designs contribute to lift, drag maneuverability, etc. Similarly, a design science of education must determine how different designs of learning environments contribute to learning, cooperation, motivation, etc.” (Collins, 1992:24).

Educational Technology is defines differently by different authors depending on their needs because of diversity and different perceptions.

1. Educational technology is the use of technology to improve education. It is a systematic, iterative process for designing instruction or training used to improve performance. Educational technology is sometimes also known as instructional technology or learning technology. (Wikipedia: Educational technology)

2. The study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources.

3. A definition centered on its process: "A complex, integrated process involving people, procedures, ideas, devices, and organization, for analyzing problems, and devising, implementing, evaluating and managing solutions to those problems, involved in all aspects of human learning"

4. Lachance et al. (1980:183) also focus on the the process idea: la technologie éducative en tant que processus systématique intégrant les diverses fonctions du processus éducatif. Elle vise, d'une part, à analyser des problèmes reliés à l'enseignement et/ou à l'apprentissage et, d'autre part, à élaborer, implanter et évaluer des solutions à ces problèmes par le développement et l'exploitation des ressources éducatives (cited by Lapointe, 1991)

5. Educational Technology (Information Technology) according to International Technology Education Association

a) Teaches with technology (uses technology as a tool)

b) Primarily concerned with the narrow spectrum of information and communicationtechnologies

c) Primary goal: To enhance the teaching and learning process

Irrespective of the fact that educational technology has immense benefits, utility and implication in the field of education , still not be fully applied in schools , because there is lack of equipments , resources , infrastructure necessary for its application .

Significances of Educational Technology

Educational technology analysis forever had degree formidable agenda. Typically it solely aims at hyperbolic efficiency or effectiveness of current practice, but usually it aims at education modification. Whereas it's going to be thought-about as a method science it together addresses basic problems with learning, teaching and social system so makes use of the entire vary of recent science and life sciences methodology. We sleep in a very dynamic world capsulated by just about endless amounts of knowledge. Riding the coattails of data is all of the technology we

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have at our fingertips. For as prevailing as technology is presently, is it commutation real lasting education? Can technology have a neighborhood in our classrooms? I think any level-headed skilled would agree that kids ought to be able to use technology to be competitive inside the geographical point once graduation. With all the trends and advancements in technology no one can argue that we'll go backwards from here. I don't foresee technology commutation impassioned lecturers educating their students. I just see it as a significant tool to help the education methodology and prepare students for the long-term. From the studies I've scan, lecturers got to use plenty of technology inside the space. the kids seem to basically get pleasure from it and area unit excited concerning exploitation it. Those interested by grip technology ought to be compelled to coach themselves on what's out there. Here could also be a small sliver of the advantages we tend to tend to achieve from exploitation technology to show people.

Equality: School districts across the country are not created equal. There is so much disparity in educational resources depending on the wealth, or lack thereof, depending on certain areas. Students using technology in low income districts gain significant skills and advantages in the learning process. Using the same technology is an equalizer for disadvantaged students.

Future: The world is moving towards technology at a breakneck pace. Educators have a responsibility to introduce, encourage, and help students master technology, as well as subjects, as it applies to school and the future. Technology will be used in every aspect of the professional lives of current students. So upon graduation, whether the next step is college or career, technology will be used daily. Why not use it daily in school?

Mobile: Using technology the classroom can be taken anywhere. With all the knowledge and resources contained and deliverable on demand in a mobile device, students can learn at home or in the "field". Mobile technology allows for greater collaboration between students promoting strong foundations in group work.

Motivation: Technology tracks and reports student's progress instantly. What fun is running a marathon if you don't know how long it takes. Runners can get instant feedback for hundreds of data points as to their condition. This feedback provides instant motivation to improve performance.

Similarly students who use technology are motivated to improve performance. Just like they do at home on their gaming consoles. Trying to beat high scores at home and trying to beat high scores in math use the same psychology.

Social: This runs along the same lines as motivation. Creating a social element to educational technology can allow for healthy competition amongst peers both in the same classroom and across the country. Performing well and earning badges to gain virtual social status is of the heart of many social applications today. Personal identities do not have to be used, instead students could use avatars to hide possible confidentiality breaches. Using technology to make education have social elements can make learning very addictive.

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Savings: The savings which result from using technology can come in many facets. On a basic level technology can replace infrastructure. Desks, books, lab equipment and other items are a heavy cost burden on schools everywhere. Technology and devices can help save on these costs. In addition geographically isolated or economically disadvantaged children can benefit from access to online software or resources which would be cost prohibitive without technology.

Updates: I recently read an article that reported students using 10 year old textbook in school. Updating textbooks can cost lots of money and do significant damage to budgets. On the other hand, updating software and educational content is not as expensive or cumbersome. With the help of technology course curriculum can reflect real world data. In some applications students can be exposed to real-time information.

Assessments: Assessing students performance can be done instantly with technology. It's more than just test scores, simply understanding students grasp of the subject in real time can be done on tablets in classrooms. A classroom could be questioned with a multiple-choice problem. Students could then input their answer and the feedback score is instantly given to the student and teacher. Corrections can be made long before examinations.

Global: Students and classrooms or even schools can be connected to anyone in the world instantly. Devices coupled with the Internet can allow for a free way to communicate globally. The chance to understand international or different cultural perspectives on the same topic is incredible.

Convenience: Having children carry heavy backpacks, text books, and binders isn't very efficient. A new lightweight laptop weighs less than 5 pounds and can have an internal storage capability of more than 2 million illustrated pages. In addition to an internal hard drive, access to the Internet can provide an almost unlimited source of information. Ergonomic issues and back pain are a real problem in children. These conditions can lead to chronic problems throughout adulthood.

Education coupled with technology is overall a very positive thing. It's still in relative infancy and progress will continue to move forward making better systems. Teachers will still retain control over learning.

The school of 10 years ago looks very different from schools today. Also, students are being inundated with technology at a very young age. The transition has already begun. Education of the future will be delivered with current information delivered through traditional teaching methods and fantastic technological tools.

Earlier, technology in education was a debatable topic amongst the society. Everyone had their own views on modernizing education and making it technology aided. There were a huge number of positives and negatives to education technology. But, gradually as technology was embraced by the educational institutes, they realized the importance of technology in education. Its positives outnumbered the negatives and now, with technology, education has taken a whole

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new meaning that it leaves us with no doubt that our educational system has been transformed owing to the ever-advancing technology. Technology and education are a great combination if used together with a right reason and vision.

To elucidate on the topic of this article, I am more than definite that **technology improves education** to a great extent and it has now become a need for revolutionizing education for the better.

With technology, educators, students and parents have a variety of learning tools at their fingertips. Here are some of the **ways in which technology improves education** over time:

- **Teachers can collaborate to share their ideas and resources online:** They can communicate with others across the world in an instant, meet the shortcomings of their work, refine it and provide their students with the best. This approach definitely enhances the practice of teaching.
- **Students can develop valuable research skills at a young age:** Technology gives students immediate access to an abundance of quality information which leads to learning at much quicker rates than before.
- **Students and teachers have access to an expanse of material:** There are plenty of resourceful, credible websites available on the Internet that both teachers and students can utilize. The Internet also provides a variety of knowledge and doesn't limit students to one person's opinion.
- **Online learning is now an equally credible option:** Face-to-face interaction is huge, especially in the younger years, but some students work better when they can go at their own pace. Online education is now accredited and has changed the way we view education.

There are innumerable **instances** till date where we can see the improvement in education, once it embraced technology. I will state a few remarkable ones of them to provide you with a more realistic picture of the whole scenario. Here's the list along with the references to the originals:

- **The Flipped Classroom:** This popular technological approach has gotten to everybody's ears by now. It is a practice in which, students watch lecture videos as homework and discussion is carried on them in the class-time by the teachers. It has resulted in a remarkably better student performance, with noticeable grade boost-up. Students can now learn at their own pace and save class-time for interaction. To go into more details about this approach refer to this article on The Flipped Classroom .
- **Effectiveness of EdTech on Mathematics for K-12:** Technology has proved to be effective for making students efficiently adept with Math. Out of several, there are three remarkable technologies, which in my opinion should be brought to the light. Computer-managed learning is a program that uses computers to assess student learning on Math and assign them with appropriate Math material, which they can work on to score and receive a chart of their progress for self-assessment; Comprehensive models such as Cognitive Tutor and I Can Learn use computer-aided instruction as well as non-computer activities for students to

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approach Math; Supplemental CAI technology consists of individualized computer-assisted instruction (CAI), to provide additional instruction at students' assessed levels. Findings indicate that educational technology applications produce a positive effect on Mathematics achievement.

- **Long-term research indicative of the positives of technology on learning:** Researches have been performed to address the question, does the use of computer technology affect student achievement in traditional classrooms as compared to classrooms that do not use technology? An extensive literature search and a systematic review process were employed and insights about the state of the field, implications for technology use, and prospects for future were discussed. Refer to the original review, Review of Educational Research .
- **Educational Technology improves student learning outcomes:** Evidence suggests that educational technologies can improve student achievement, so long as such tools are integrated thoughtfully into teaching and learning. When digital capabilities like, online environments are incorporated meaningfully into instruction, students have new opportunities to learn and achieve. Refer to this research brief for details.
- **The effect of technology on education depends on the design of instruction:** The design of the instruction accounts for more variance in how and why people learn than the technology used to deliver the instruction. Educators and educational researchers should be encouraged to focus on determining how to better integrate the use of a given technology to facilitate learning, rather than asking if it works or if one is more effective than another. Refer to this report for a detailed study.

Over the past years, a number of studies have shown benefits from the use of technology in education. The role is vital, and the question is no longer if technology enhances learning, but rather how do we improve our use of technology to enhance learning?

Scope of Educational Technology

Educational generation is a process- oriented method. Educational era is not confined to teaching and studying manner and theories nonetheless teaching-getting to know method is inspired a whole lot more by using educational technology. Theories were shifted from getting to know to teaching simplest because of educational generation.

If the academic technology is limited to audio-visible aids, mechanical and electronic devices the scope of educational era becomes constrained, but educational technology isn't always restricted to all this stuff alternatively, it pervades all over. Instructional era need to move into:

- a. At home with family and relative
- b. Help by External sources
- c. Continuous and rigorous analysis
- d. Obstacles in solving problems
- e. Specification of direct behavior
- f. Clear Specification of the problems
- g. Management and organization of man, material, resources

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- h. Determination of pre-requisites and the gradual direct behaviour.
- i. Availability of a few media as for example films, television, radio etc.

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Conflict of Interests

The author declared no conflict of interests.

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Negative Effects and Factors Associated with Postpartum Depression on both Vaginal and Cesarean Delivery Groups

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ABSTRACT

Background and objectives: Postpartum depression is highly prevalent and a broad range of causes including types of delivery are introduced as its source. This study aimed to investigate the relationship between types of delivery and the prevalence of postpartum depression. **Methods:** This cross-sectional study was carried out in the maternity ward of Sina hospital, Mashhad, in 2014. To this end, 300 women referring to delivery ward were selected through convenient sampling and examined 4 times (immediately after childbirth, 4 weeks after the first assessment, 6 weeks after the second assessment, and 8 weeks after the third assessment) using a demographic questionnaire and Beck's Depression Inventory. In this regard, the first assessment was conducted in person and other assessments were conducted by researcher through making phone calls. Those mothers taking psychiatric medication, having children with serious physical health problem, and having obtained a score above 14 for the first assessment based on the Beck's Depression Inventory as well as those for whom it was not possible to making phone calls were excluded from the study. Data was analyzed using the SPSS software and the confidence level was set at .05. **Findings:** There was no significant difference between two groups in terms of education, occupation, economic status, being satisfied with their husbands' support and family and planned and unplanned pregnancy. The prevalence of depression was 10.3 percent two weeks after childbirth and it was 13 percent for mothers during the 8th weeks after childbirth. However, this difference was not statistically significant. **Conclusions:** The postpartum depression of high prevalence; therefore, adjusting each of the relevant factors is useful for reducing the incidence of depression.

Keywords: *Postpartum Depression, Postpartum Period, Delivery, Cesarean, Vagina*

Pregnancy and postpartum period are associated with important psychological and physiological changes which sometimes lead to pathological changes and mental disorders. Postpartum psychiatric disorders, including postpartum depression creates lots of problems for mothers and

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other family members. Such a situation may affect mother-infant affection and other family relationships and can even be a threat to the mother, infant and other children's security and health (1). No specific mechanism is proposed for developing postpartum depression after cesarean delivery. It may be caused by longer hospital stay, anesthesia and surgical complications and later return to daily activities (2-3). Regarding the well-known complications of cesarean delivery and its growing trend, especially in developing countries, further investigations on its potential harmful effects on mothers and infants is of essence (5-4).

For this reason and given the contradictory findings associated with cesarean delivery and postpartum depression, the present study taking disturbing factors into account examines the relationship between these two variables (7-6). When an infant's mother is expecting delightful experiences in life, she also tackles with unknown and unpleasant feelings of anxiety, helplessness, lack of pleasure, sleep and appetite disorders, lack of confidence and inadequacy as a parent. In postpartum depression, the patient experiences increased appetite and weight gain. The desire to sleep increases during this period, especially among nulliparous mothers; however, they get up at a sound of a baby's cries and are unable to go to asleep again. Some symptoms of postpartum depression include irritability, spontaneous and uncontrolled crying, explosive and aggressive behavior, severe anxiety, panic attacks, fear and tendency to loneliness. One of the most prominent features of postpartum depression is rejecting the baby due to the mother's abnormal anger. An important and warning issue which shall be concerned is psychiatric symptoms such as suicidal thoughts and large disturbances in sleeping pattern (8). As it was mentioned above, the method of delivery is considered as a risk factor for postpartum depression. Research carried out in this field revealed conflicting results. The results of the study conducted by Aponge et al. Showed that women with cesarean deliver are more likely to experience postpartum depression (9). Dolatian et al. and Farzad et al. also concluded that women are more prone to postpartum depression after caesarean delivery. In contrast, research findings obtained by Chaaya et al. and Salmanian et al. showed that postpartum depression in women undergoing cesarean delivery is less in comparison with women undergoing vaginal delivery. Some researchers also concluded that there is no relationship between method of delivery and postpartum depression. Regarding the controversies of the results and unknown factors in more than 50 percent of the cases, causing enormous problems for mothers and infants, identifying risk factors for this disorder seems essential. Hence, this study aimed to determine the relationship between types of delivery and postpartum depression in women referring to Amol health care centers, Iran, during the 2nd and 8th weeks after delivery. Limited research has been conducted on mental complications of cesarean delivery and other obstetric surgeries (10). After reviewing the studies done by other researchers, Clement mentioned that in 18 studies women undergoing cesarean delivery were less satisfied with birth experience and in other eleven studies women after vaginal delivery were more depressed than women having cesarean delivery; however, in another 9 studies no difference was observed between the two groups in terms of depression

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(11). Carter et al. also investigated the results of twenty-four studies entitled cesarean delivery and postpartum depression and a relationship was observed between these two variables in 5 cases; however, no correlation was found in other fifteen studies (12). In other studies, it is indicated that cesarean delivery can cause negative psychological effects in some women so that the sense of deprivation, guilt or failure due to lack of natural childbirth provides conditions for increased compatibility problems in mothers (14-13). The cause of this disease is still unknown; however, there are some theories on the etiology of postpartum depression and include biological factors (such as hormonal causes such as a sudden drop in estrogen levels and increased urinary excretion of cortisol, vectors, neurological factors and genetic theories); psychological factors (e.g. personality theories) and social factors (such as social support, stress, life, culture and preparation for childbirth) (15). In a study conducted in Kerman, such postpartum depression was more prevalent among nulliparous mothers and those mothers having a history of abortion, child death and unplanned pregnancies. The importance of the child gender for the mother and greater number of children also showed a significant relationship with the increased prevalence of depression. In addition to the harmful effects of postpartum depression on the mother-child relationship, disrupts mothers' relationships with their husbands and the husbands of depressed women often become depressed, which, if untreated, may lead to separation and divorce (16).

Rapid detection and differentiation of the symptoms from the postpartum sadness is one of the major tasks of the treatment group. Medical group (including general practitioners, midwives and family planning experts and vaccination group) should be able to identify those who are prone to postpartum mental disorders (particularly postpartum depression) and gives them some advices on health care and support during this period (17). In this regard, treatment with Selective serotonin re-uptake inhibitors (SSRIS), psychotherapy (sometimes as a treatment method and sometimes as a way to increase the medication acceptance by the patient), and, in severe cases, hospitalization are recommended. Having a history of depression, depression during pregnancy, and risk factors make follow-up care necessary (19-18).

This study aimed to identify risk factors and prevalence of postpartum depression and to make relevant experts working in the health centers aware of this disorder in order to prevent adverse effects of the disorder on the mothers and infants' health in Zahedan.

METHODOLOGY

This study is a cross-sectional study conducted in Mashhad at Sinai Hospital during 2014. According to previous studies, 300 patients were selected based on convenient sampling. Those mothers taking psychiatric medication, having children with serious physical health problem, and having obtained a score above 14 for the first assessment based on the Beck's Depression Inventory as well as those for whom it was not possible to making phone calls were excluded from the study. The participants were assessed four times (first assessment in person and other

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times by). The first assessment was conducted at the first day of delivery (before discharge). The second, third, and fourth assessments were run during the fourth week (first month after childbirth), during the tenth week (2.5 months after childbirth), and during the 18th week (5.4 months after childbirth), respectively.

Data was collected using a demographic questionnaire including age, education level, occupation, number of pregnancies, number of children, history of abortion, history of child death, type of delivery, infant's gender, planned and unplanned pregnancy, wanted and unwanted infant's gender in terms of the patient, wanted and unwanted infant's gender in terms of the husband, history of depression, history of visiting psychiatrist, and psychiatric medicines, and infants' breastfeeding method and the Beck's Depression Inventory.

Beck's Depression Inventory was first introduced in 1961 by Beck et al., revised in 1971 and finally published in 1978. This tool is well-known since, during 30 years of its development, it has been employed in more than 1000 research studies. In Iran, this test was standardized by Okhovat and is widely used to measure depression in normal subjects and patients with mental disorders. The Beck's Depression Inventory is not culture specific and is applicable for different social classes including rich and poor subjects. In this test, the respondents are asked to scale the severity of symptoms from 0-3.

The questionnaire is related to some areas such as feelings of failure, guilt, irritability, sleep disorder and lack of appetite and so on. The questionnaire is a self-report test and it takes 5-10 minutes to complete it.

Since its development (30 years ago), its reliability and validity has been extensively assessed based on psychometric factors. A high-level analysis of the various attempts to determine its internal consistency has shown that the coefficients vary from 0.73 to 2 with the mean of 0.86 for the common 21-item version. Steer, Beck, Brown, and Berjik reported that patients with major depression disorders compared with those having dysthymic disorder receive relatively higher scores. The 21-item version is used in this study and the responses were scored as follows: 0-14 as natural persons or people with normal levels of depression, 15-31 people with mild depression, 32-47 moderate depression, and 48-63 individuals with severe depression. At each turn of assessment, patients with scores above 14 were excluded after being referred to a psychiatrist. Finally, data were analyzed using tables and descriptive and analytical statistics as well as Chi-square tests in the SPSS software.

FINDINGS

In this study, 310 pregnant women (154 women in vaginal delivery and 156 women in cesarean delivery groups) were examined. The specifications of the participants are presented in Table 1.

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Table 1: A comparison between the specifications of the studied groups and postpartum depression

Variables		Vaginal delivery group (n=154)	Cesarean delivery group (n=156)	p
Mean age(<i>standard deviation</i>)		26.24	27.44	0.05
Mean age of husband (<i>standard deviation</i>)		3.33	31.3	0.13
Occupation (%)	housewife	143	146	0.797
	employed	11	10	
Education level	illiterate	3	4	0.89
	Below diploma	76	79	
	Diploma and academic degree	75	73	
Husband's education level	illiterate	2	2	0.69
	Below diploma	80	88	
	Diploma and academic degree	70	66	
Income level	high	16	16	0.52
	medium	101	193	
	low	37	46	
A history of premenstrual syndrome (%)		89	54	0.001
Being satisfied with the infant's gender (%)		129	126	0.59
mean number of prenatal care (<i>standard deviation</i>)		12	24	0.03
Pregnancy problems (%)		54	53	0.522
Abortion (%)		53	35	0.42

The mean age of women in the vaginal delivery group was 66.5 ± 26.25 years and it was significantly lower than the cesarean delivery group ($p < .05$). There was no significant difference between two groups in terms of occupation, patients and their husbands' education level, income level, and satisfaction from infants' genders. The mean numbers of prenatal care were 11.51 and 12.03 in the vaginal delivery and cesarean delivery groups, respectively. The observed difference was not statistically significant ($p = .52$). 89 (57.8%) patients reported a history of premenstrual syndrome in the vaginal delivery group; however, this was 5.3% for another group. The observed difference was statistically significant ($p = .001$). The history of abortion in the vaginal delivery group was 7% and it was 16% in cesarean delivery group and this difference was also statistically significant ($p = .03$).

With regard to the postpartum depression based on Edinburgh's questionnaire and choosing a cutoff point 12, 8 (2.5%) subjects in the vaginal delivery group and 12 (7.7%) subjects in the

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cesarean delivery group had the postpartum depression and the difference obtained was not statistically significant ($p=.27$) (CI: .6-3.83; OR=1.52, 95%).

In this study, the relationships between some variables such as age, history of premenstrual syndrome and a history of abortion with postpartum depression were statistically significant (Table 1). Logistic regression was used to control these variables and to estimate the matched odds ratio of the variable types of delivery. Logistic regression test results are shown in Table 2.

Table 2: Matched odds ratio, types of delivery, age, a history of abortion and a history of premenstrual syndrome based on the logistic regression analysis to evaluate the relationship between cesarean delivery and postpartum depression

Variable	Matched odds ratio	Confidence interval 95%		P
		Upper bound	Lower bound	
Types of delivery: Cesarean or vaginal	1 2.53	-.93-6.88		.07
A history of premenstrual syndrome	4.36	1.48-12.83		.008
Abortion	.3	.04-2.49		.27
Age groups	1	-		
30-18 years	1.92	.2-17.89		.57
under 18 years	1.59	.51-4.92		.42
above 30 years				

The goodness of the fit for the model was confirmed with $p=.8$. As it can be observed, the probability of postpartum depression in cesarean delivery group after controlling the variables abortion, a history of premenstrual syndrome, and age was 2.53 times greater than the group with vaginal delivery (CI: .93-6.88; 95%). Postpartum depression in people with a history of premenstrual syndrome is significantly higher than those having no such background ($p=.008$; matched OR= 4.36). Postpartum depression level increased among the two age groups (namely under 18 and above 30 years) compared to the age group 18-30 years; however, the difference was not statistically significant ($p=.57$ and $p=.42$).

RESULTS

In the present study, no statistically significant difference was observed between the two groups in terms of parents' education level, mother's occupation, and family's income level, marital satisfaction, and infants' gender, satisfaction from support provided by husbands and other family members, and acceptance of pregnancy. However, significant differences were found between the two groups in terms of age, type of house ownership, time and place of delivery, and

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living with other family members (Table 3). The mean age of vaginal delivery group (34.4 ± 23.24 years) was lower than that for the cesarean delivery group (73.4 ± 23.26 years) ($p < .001$).

Table 3: Relative and absolute frequency distribution of women's social and individual characteristics in the vaginal and cesarean delivery groups

Group		Vaginal delivery	Cesarean delivery	P
Mother's education level	Primary school	20 (5.13)	(12) 17	25/0
	Secondary school	(24) 36	(4.24) 29	
	High school	73 (3.49)	(4.51) 73	
	University	19 (8.12)	(2.16) 23	
Mother's occupation	housewife	129 (2.87)	(4.82) 117	6/0
	employed	19 (8/12)	(2.17) 25	
Acceptance of pregnancy	planned	132 (2.89)	(2.85) 121	24/0
	unplanned	16 (8/11)	(8.14) 21	
Marital satisfaction	strongly satisfied	(25) 37	(34.7) 35	4/0
	satisfied	101 (2.68)	(4.70) 100	
	Dissatisfied	(8.6) 10	(9.4) 7	
satisfaction from husband's support	strongly satisfied	58 (2.39)	(5.34) 49	4/0
	satisfied	85 (4.57)	(5.58) 83	
	Dissatisfied	(4.3) 5	(7) 10	
Place of delivery	State hospital	139 (9.93)	(3.87) 125	05/0
	Private hospital	(1.6) 9	(7.12) 18	
Time of delivery	day	81 (1.55)	(5.77) 110	00/0
	night	66 (9.44)	(5.22) 32	

The results showed that during the second week after delivery, the postpartum depression prevalence was 3.10 percent (5.9% in the vaginal delivery group and 30.11% in selected cesarean delivery group) and no statistically significant difference was observed between the two groups in terms of postpartum depression prevalence.

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In two weeks after delivery, the postpartum depression mean score based on the Edinburgh's questionnaire was 64.4 ± 58.7 and 4.06 ± 19.8 in the vaginal and cesarean delivery groups, respectively. There was a statistically significant difference between the two groups (Table 4).

Table 4: Comparison of the depression average scores in two and eight weeks after delivery in vaginal and cesarean delivery groups

Group	Vaginal delivery		Cesarean delivery		p
	Mean	Standard deviation	Mean	Standard deviation	
Depression score in two weeks after delivery	7.58	4.64	8.19	4.06	.066
Depression score in eight weeks after delivery	6.14	4.67	6.60	4.75	.37

In this study, there were 73 subjects in the vaginal delivery group and 75 subjects in the caesarean delivery group. The average age scores of women in the vaginal and caesarean delivery groups were 3.42 ± 22.22 years and 52.82 ± 23.19 years, respectively. The average age scores of the husbands of women in the vaginal and caesarean delivery groups were 3.57 ± 27.1 years and 3.55 ± 27.07 years, respectively. The average marriage age scores of women in the vaginal and caesarean delivery groups were 3.52 ± 20.50 and 2.95 ± 20.52 years, respectively. The difference was not statistically significant.

Regarding the women in the vaginal delivery group, they had high school education in 56.2% cases and 95.9% cases were housewives and their husbands in 52.1% cases had their own jobs. In 71.2% cases, they were tenants and had the house area per capita between 16-30 m² in 64.4% cases. Considering the women in the caesarean delivery group, they had high school education in 56 % cases and 94.7% cases were housewives and their husbands in 54.7% cases had their own jobs. In 68% cases, they were tenants and had the house area per capita between 16-30 m² in 54.7% cases.

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Table 5: The distribution of women in terms of postpartum depression by the types of delivery in pregnant women having referred to health care centers of Shahid Beheshti University of Medical Sciences in 1984

Depression Type of delivery	Score below 12		Score above 12		Total	
	n	%	n	%	n	%
vaginal	63	86.3	10	13.7	73	100
caesarean	55	73.3	20	36.7	75	100

CONCLUSION

Results show that the relative risk of depression in women with cesarean deliver (OR=2) with 95% confidence level ranges from 1.2-3.9. This means that the rate of postpartum depression for women with cesarean delivery is twice as much as that for women having normal vaginal delivery. The attributed risk of cesarean delivery compared to vaginal delivery is (AR=13%). This means that if women have normal vaginal delivery, their depression rate will be 13% lower.

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Conflict of Interests

The author declared no conflict of interests.

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Parenting Styles Influencing Personality Development of Catering Students

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ABSTRACT

Family is the main pillar of child's personality development. Elements of family life such as parenting style and parental attitudes profoundly affect the psychosocial and personality development of adolescents. Parenting style is a psychological construct representing standard strategies that parents use in child rearing. The quality of the relationship between parents and children are considered as the determining factor of adjustment, interpersonal interaction. Psychological and emotional atmosphere dominant on the family form the behavioral and personality characteristics of children. (Sarmast, 2006). Identity and personality formation during adolescence is profoundly influenced by the dyadic parent-child relationship. When parenting is dysfunctional, internalization and continuity of parental values become problematic. Various studies indicate that one of the most effective factors on the development and formation of adolescent personality is their parent's parenting practices. (Belsky & Barrendz 2008; Prinzich et. al. 2004). The present study investigates two dimensions of parental style, "Care & overprotection" on adolescent personality. Personality development Index by K.V. Kaliappan & S. Karithikeyan and parental bonding instrument by Gordon Parker, Hilary Tupling are the tools used. The relationship and outcome of each dimension of parenting style will be discussed with personality of adolescent. SPSS package will be used for statistical analysis.

Keywords: *Student, Personality, Parenting Style, Parent-Child Relationship.*

Family is the main pillar of child's personality development. Elements of family life such as parenting style and parental attitudes profoundly affect the psychosocial and personality development of adolescents. Parenting style is a psychological construct representing standard strategies that parents use in child rearing. Various studies indicate that one of the most effective factors on the development and formation of adolescent personality is their parent's parenting practices. (Belsky & Barrendz 2008; Prinzich et. al. 2004). The research of Diana Baumrind

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indicated four basic elements that could help shape successful parenting, responsiveness Vs unresponsiveness and demanding Vs undemanding. From these three general parenting styles are identified, authoritative, authoritarian, permissive. It has been elaborated on by (Maccoby and Martin, 1983; Steinberg *et al.*, 1994b; Hetherington *et al.*, 1999). The researchers concluded with four styles of parenting –authoritative, authoritarian, indulgent, and neglectful.

Adolescence is an exciting and dynamic period for young people. It is transition from dependence to independent relationships with parents, the style of parenting can play an important role in helping the adolescents to face this great challenge. (Mckinney & Renk, 2008). The strongest factor in molding a child's personality is his relationship with his parents. If the parents love generously, with non possessive affect and treat the child as a person who has both rights and responsibilities in the family then the child develops normally.

In the current context adolescents face a great threat to their mental health, as the rates of depression, suicide, homicide, substance abuse etc. are on the rise. According to report by UNICEF 2012, each year 20 percent of adolescents experience mental health problems. Research evidence indicates that the single most consistent predictor of adolescent mental health and wellbeing is the quality of relationship the young people have with their parents. (Resnick *et al.*, 1997). Positive parenting practices delay risk behaviour in risk naive youth, moderate behaviour in risk experienced youth and promote optimal youth development.

REVIEW OF LITERATURE

Muhammad Ebrahim *et al.* (2012) explored parenting styles and personality dimensions of adolescents. It revealed that authoritative parenting style contributes to positive characteristics like agreeableness, extraversion and openness, further recommended for parent training. Huang xiugin *et al.* (2010) found that inappropriate parental rearing styles influenced adolescent personality, they became introverted, withdrawn and aloof. Maddahi and Sammadzaden (2010) in their study revealed that authoritative and authoritarian parenting style had positive relation with children's personality and negative relation with permissive parenting style. Robert F Krueger *et al.* (2009) concluded from his study that parenting style shaped children's personality. R.N.Rai and R.C.Pandey (2009) found that perceived parental rearing style had an influence on anxiety, depression, hostility and self esteem of adolescents. Simons and Conger (2007) investigated parenting styles between mothers and fathers in two-parent families and found that having two authoritative parents was associated with the best outcome for adolescents (lowest levels of depression and greatest commitment to school), though even having just one authoritative parent seemed to buffer the adolescent against negative consequences. Sarmast, (2006) found in his study that, the quality of the relationship between parents and children are considered as the determining factor of adjustment, interpersonal interaction. Psychological and emotional atmosphere dominant on the family form the behavioral and personality characteristics of children.

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Aim:

- To analyze the influence of parenting style on adolescent's (Catering students) personality development.

Objectives of the Study

1. To find the difference between the mother's and father's parenting style.
2. To find the influence of parenting styles on personality development of adolescent catering students.

Hypotheses

1. There would be a significant difference in mother's and father's "care" dimension of parenting style towards their adolescents
2. There would be a significant difference in mother's and father's "overprotection" dimension towards their adolescent children.
3. There would be a significant relation between mother's parenting style and adolescent's personality development.
4. There would be a significant relation between father's parenting style and adolescent's personality development.

METHOD OF INVESTIGATION

Nature of Research Design

The present study used ex-post facto research design. Ex-post facto research is a systematic empirical inquiry in which the researcher does not have direct control over the independent variables because their manifestations have already occurred or because they are inherently not manipulative while inferences about relations among variables are made, without direct intervention, from variation of independent and dependent variables. (Kerlinger, 1964).

Selection criteria of sample

The following inclusion and exclusion criteria were adopted for selection of the sample:-
Inclusion criteria- Good health status, Willing to participate, Male Students from catering college in Trichy.

Exclusion criteria- Students below 13 and above 18 and Female students were excluded

Sampling technique

After defining the population based on exclusion and inclusion criteria, a sample of 30 was selected, through simple random sampling method. Random sampling from a finite population gives each possible sample in the entire population an equal chance of being selected. (Kothari, 1985).

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Sample description

The samples included in this study were adolescent students from Jenny's catering college and hotel management in Trichy. A total of 30 participated in this study. The age of the participants ranged from 17 -18 years.

Variables used for the present study

Parenting styles, Personality.

Operational definition of the variables

Parenting styles- A pattern used by parents in upbringing their children.

Adolescence- In the study adolescents refer to boys aged 17 – 18..

Personality- The dynamic entity governing oneself and others for development.

Tools Used For Study

Name of the Tool	Author	Year	Variables Measured
Parental bonding instrument (PBI)	Gordon Parker, Hilary Tupling and L.B. Brown	1997	Quadrants of parenting
Personality development index	K. V. Kalliappan & S. Karthikeyan	1996	Dimensions of personality

Description of the tool used

Personal data sheet

This personal data sheet gives information about the demographic details like age, education, socio- economic status and family pattern.

Parental Bonding Instrument (Pbi)

Parental Bonding Instrument developed by Hilary Tupling and L.B.Brown. Two dimensions termed 'care' and 'overprotection' or 'control', measure fundamental parental styles as perceived by the child. The measure is to be completed for both mothers and fathers separately. There are 25 item questions, including 12 'care' items and 13 'overprotection' items. Scoring – Care- Items: 1, 5, 6, 11, 12, 17: 3, 2, 1, 0 (direct scoring). Items: 2, 4, 14, 16, 18, 24 -reverse scoring. Overprotection- Items: 8, 9, 10, 13, 19, 20, 23 – 3, 2, 1, 0 (direct scoring). Items: 3, 7, 15, 21, 22, 25 -reverse scoring

Personality Development Index

Personality development index (PDI) was especially developed to measure the ten dynamic areas of personality consisting of 84 statements. These are Social Concern, .Assertiveness, Value & Culture, .Leadership, Communication, Self Confidence. Reliability of the tool was found to be high and the correlation value was 0.63. The responses are obtained on a five point scale, ranging from strongly disagree, disagree, uncertain, agree and strongly agree. High scores indicate

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improved personality. This tool was specifically developed for Indian students. Scoring- The score of the subject of the 10 personality dimensions are calculated and a profile obtained.

Procedure for data collection

The study sample consisted of adolescent students aged 17-18 years from Jenney's college of catering and hotel management in Trichy. The director of the college was approached and the purpose and importance of the present study was explained by the investigator. After obtaining permission, a convenient date was fixed with the consent of the Director. The recruited students were briefed about the objective and purpose of the study. The students were instructed to follow the instructions and complete the questionnaire. The participation in the study was voluntary and participant's confidentiality was ensured. The respondents were advised that they could withdraw from the study even during the process. The filled questionnaires were collected back.

Statistical analysis used in the study

The data collected was subjected to analysis using statistical packages for social sciences (SPSS). The data was analyzed with Pearson's correlation and "t" test.

RESULTS AND DISCUSSION

Table I, Difference between mothers and fathers parenting style on Care dimension.

Variable	Groups	N	Mean	SD	't' value
Care	Mothers	30	26	6.02	0.69
	Fathers	30	27	6.14	

Not significant at 0.05 level

Table I indicates that there is no significant difference between mothers and fathers on "care" dimension of parenting style.

Table II, Difference between mothers and fathers parenting style on Overprotection dimension.

Variable	Groups	N	Mean	SD	't' value
Overprotection	Mothers	30	19	34.72	0.74
	Fathers	30	18	5.30	

Not significant at 0.05 level

Table II indicates that there is no difference between mothers and fathers on "overprotection" dimension of parenting style.

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Table III, Comparison of mothers parenting style with personality

Group	variable	Mean	SD	Correlation coefficient
Mothers	Care	26	6.02	0.43*
	Overprotection	19	34.72	-0.01

*significant at 0.05

Table III shows the correlation mothers parenting style and personality of adolescents. There is positive relation between care and parenting style and negative relation between overprotection and parenting style.

Table IV, Comparison of fathers parenting style with personality

Group	Variable	Mean	SD	Correlation Coefficient
Fathers	Care	27	6.14	0.49*
	Overprotection	18	5.30	-0.31

*significant at 0.05

Table IV shows that there is positive correlation of fathers care and personality and negative relation of overprotection and adolescent personality.

DISCUSSION

Family plays a major role in society in the process of human's socialization and acculturation. A number of studies indicate that one of the most effective factors on the development and formation of adolescent personality is their parents parenting practices. (Belsky & Barrendz, 2002; Prinzie et al., 2004). Parenting styles are patterns for children's training that is formed by the normative interaction of parents and how they respond to children's behavior. (Kaplan et al., 2002; cited in Desjardins, 2009).

In the present study on "Parenting styles influencing personality development of catering students", it was found that 21 mothers were high on care dimension and 9 were in low category. This suggests that majority of mothers were highly caring of their adolescent children, which can be attributed to "Attachment Theory". 19 mothers fall in the high category for overprotection dimension and 11 mothers fall in low category. It can be inferred that some of the mothers are not so overprotective of their children, where they give freedom to the child so that he develops autonomy. Autonomy helps in development of self confidence and self identity. Majority of parents were caring and overprotective of their child while a few are neither caring nor overprotective. Thus it was found from the study that fathers and mothers did not differ in their parenting styles. Therefore the hypothesis that there would be significant difference in care and overprotection dimension between mothers and fathers is rejected.

It can be inferred from the study that "care" dimension of parenting style of mothers has a moderate positive correlation with adolescent personality development whereas "overprotection"

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dimension of parenting style has a weak negative correlation with adolescent personality development. Thus it supports the hypothesis that there is a relation between mothers parenting style and adolescent personality development. So it can be said that mother's parenting style (care) influences the adolescent's personality development positively.

Fathers parenting style on care dimension influences personality development of adolescents positively. On dimension of overprotection fathers parenting style negatively influences personality development. Thus it supports the hypothesis that father's parenting style influences personality development of adolescents.. The results are similar with the study by Muhammad Ebrahim(2012) that parenting practices contributes to positive characteristics.

CONCLUSION

Overall it can be concluded that parenting style including "care" in it positively influences personality development of adolescent catering students. Parenting styles of fathers and mothers were similar on "care and overprotection" dimension for majority of parents. Further it can be said that "care" dimension positively influenced personality and "overprotection" of parents negatively influenced personality development of adolescent catering students.

IMPLICATION

The study will help parents in understanding their parenting patterns and will give insight into the negative and positive influences of their parenting style that affects their personality, behavior, wellbeing and later adult life. Parents can be trained on positive parenting, which will help them to equip the positive skills and implement it in their parenting style for the wellbeing of their adolescent children.

LIMITATION

Sample size is not large enough to generalize the results. The study is limited to only male adolescents of catering college. The study included sample from only one catering college.

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Conflict of Interests

The author declared no conflict of interests.

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Correlation between Hopelessness and Different Levels of Depression among Adolescents

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ABSTRACT

In this study, the investigator tried to find the correlation of hopelessness with four levels of depression, i.e. normal, mild, moderate and severe depression. Data was collected from a sample of 200 adolescents using two psychological tests and were evaluated as per norms mentioned in the manual; the sample was categorized according to the level of depression. Then correlation between hopelessness and the various levels of depression was calculated using Pearson's product moment correlation which concluded as, there exists a positive correlation between the hopelessness and mild, moderate and severe depression. In other words with the increase in hopelessness, the depression also increases and vice versa.

Keywords: *Hopelessness, Adolescents and Depression.*

Adolescence generally extends from 13 to 19 years of age and is referred as a stormy period of life. It acts as a bridge between childhood and adulthood. During this stage many sort of developments takes place, like physical, mental, social and emotional. Puberty plays a very vital role in adolescence, which leads to sexual maturity. Erick Erickson in his psychosocial stages marked this stage as fifth stage i.e. Ego Identity versus Role Confusion. There are many sorts of pressures which an adolescent faces it may be peer pressure, social, psychological and even from family. This leads to the problem of depression. And depression is very much common in adolescents. Depression is a state of mind, in which an individual feels sad, worthless and is not able to live in a normal way of life. According to DSM-IV a depressed person loses the interest in the previously liked activities, faces change in sleep patterns which may insomnia or hypersomnia, change in appetite, lack of energy and concentration, self loathing, and even leads to suicidality. Hopelessness is a condition, when there is no hope i.e. a situation beyond optimism. In other words, where there is no possibility of being solved or sorted out. It is negative in nature, losing hope, control and confidence for something in future. This may give rise to anti-social behaviors and even depression.

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Objectives:

1. To study the relationship of hopelessness with normal range of depression.
2. To study the relationship of hopelessness with mild depression.
3. To study the relationship of hopelessness with moderate depression.
4. To study the relationship of hopelessness with severe depression.

Hypotheses:

1. There exist a significant correlation between hopelessness and normal range of depression.
2. There exist a significant correlation between hopelessness and mild depression.
3. There exist a significant correlation between hopelessness and moderate depression.
4. There exist a significant correlation between hopelessness and severe depression.

METHOD

Sample:

A sample of 200 adolescents was selected randomly, studying in eight educational institutions located in Bathinda. Then they were categorized as adolescents with normal, mild, moderate and severe depression.

Level of Depression	No. of Adolescents
Normal range of Depression	39
Mild Depression	56
Moderate Depression	64
Severe Depression	41
Total	200

Research Design:

To study the correlation between hopelessness and different levels of depression among adolescents studying in various educational institutes in Bathinda. The data was collected using two different psychological tests and were evaluated according to the norms mentioned in the manual, the sample was categorized as adolescents with normal, mild, moderate and severe depression: then correlation between hopelessness and different levels of depression was calculated using Pearson's product moment correlation.

Test Tools:

The following tools were used in the present study to collect the data:

- a) Zung Self-Rating Depression Scale (1965).
- b) Beck Hopelessness Scale (1988).

Statistical Techniques:

The tabulated data was analyzed and interpreted by using Pearson Product Moment Correlation.

RESULTS AND DISCUSSION

To test hypothesis number 1:

Table 1:

Variable	Correlation Coefficient	Level of Significance
Hopelessness and normal range of depression.	0.15211	Not Significant

As shown in table 1, the coefficient of correlation between Hopelessness and normal range of depression is 0.15211, which is not significant at any level of significance.

Therefore, the first hypothesis that, “There exist a significant correlation between hopelessness and normal range of depression” is rejected.

To test hypothesis number 2:

Table2:

Variable	Correlation Coefficient	Level of Significance
Hopelessness and mild depression.	0.254525*	*p<0.05

As shown in table 2, the coefficient of correlation between Hopelessness and mild depression is 0.254525, which is significant at 0.05 level of significance.

Therefore, the first hypothesis that, “There exist a significant correlation between hopelessness and mild depression” is accepted.

To test hypothesis number 3:

Table 3:

Variable	Correlation Coefficient	Level of Significance
Hopelessness and moderate depression.	0.380183**	**p<0.01

As shown in table 3, the coefficient of correlation between Hopelessness and moderate depression is 0.380183, which is significant at 0.01 level of significance.

Therefore, the first hypothesis that, “There exist a significant correlation between hopelessness and moderate depression” is accepted.

To test hypothesis number 4:

Table 4:

Variable	Correlation Coefficient	Level of Significance
Hopelessness and severe depression.	0.705554**	**p<0.01

As shown in table 4, the coefficient of correlation between Hopelessness and severe depression is 1, which is significant at 0.01 level of significance.

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Therefore, the first hypothesis that, “There exist a significant correlation between hopelessness and severe depression” is accepted.

CONCLUSION

1. Hopelessness is positively correlated to depression that is with the increase in hopelessness, depression also increases.
2. This can be concluded that hopelessness is strongly correlated to Mild, moderate and severe depression. Hopelessness leads to depression and vice versa.

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Conflict of Interests

The author declared no conflict of interests.

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